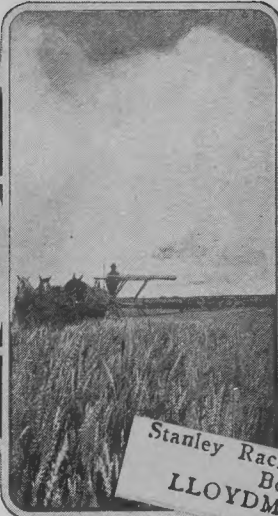


Vol. 29

The NOR-WEST FARMER

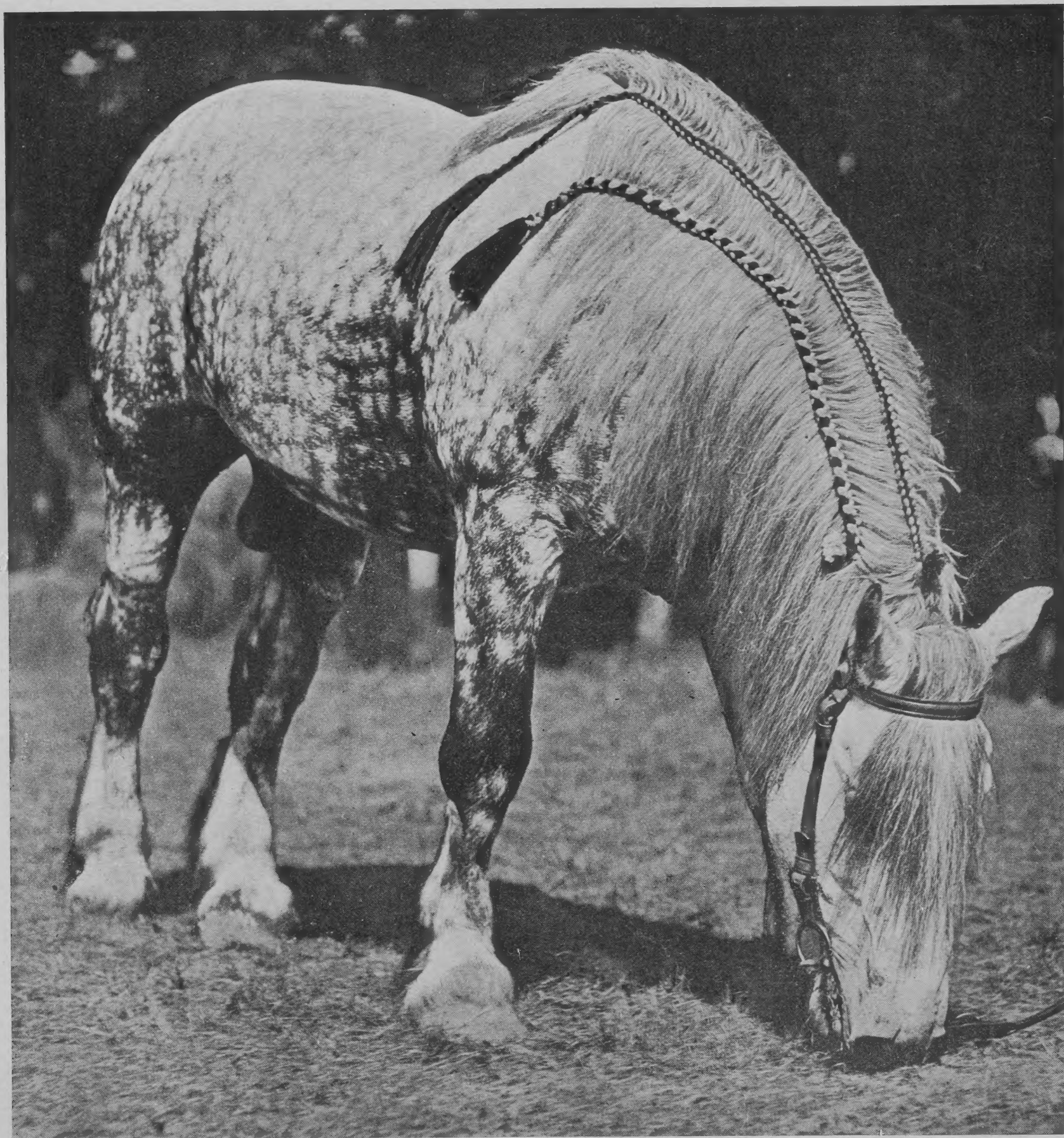
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Stanley Rackham
Box 117
LLOYDMINSTER, Sask.
Mar 12

No. 5

FOR THE GRAIN GROWER, THRESHERMAN, STOCKMAN, DAIRYMAN AND THE HOME.



WINNIPEG, CANADA.

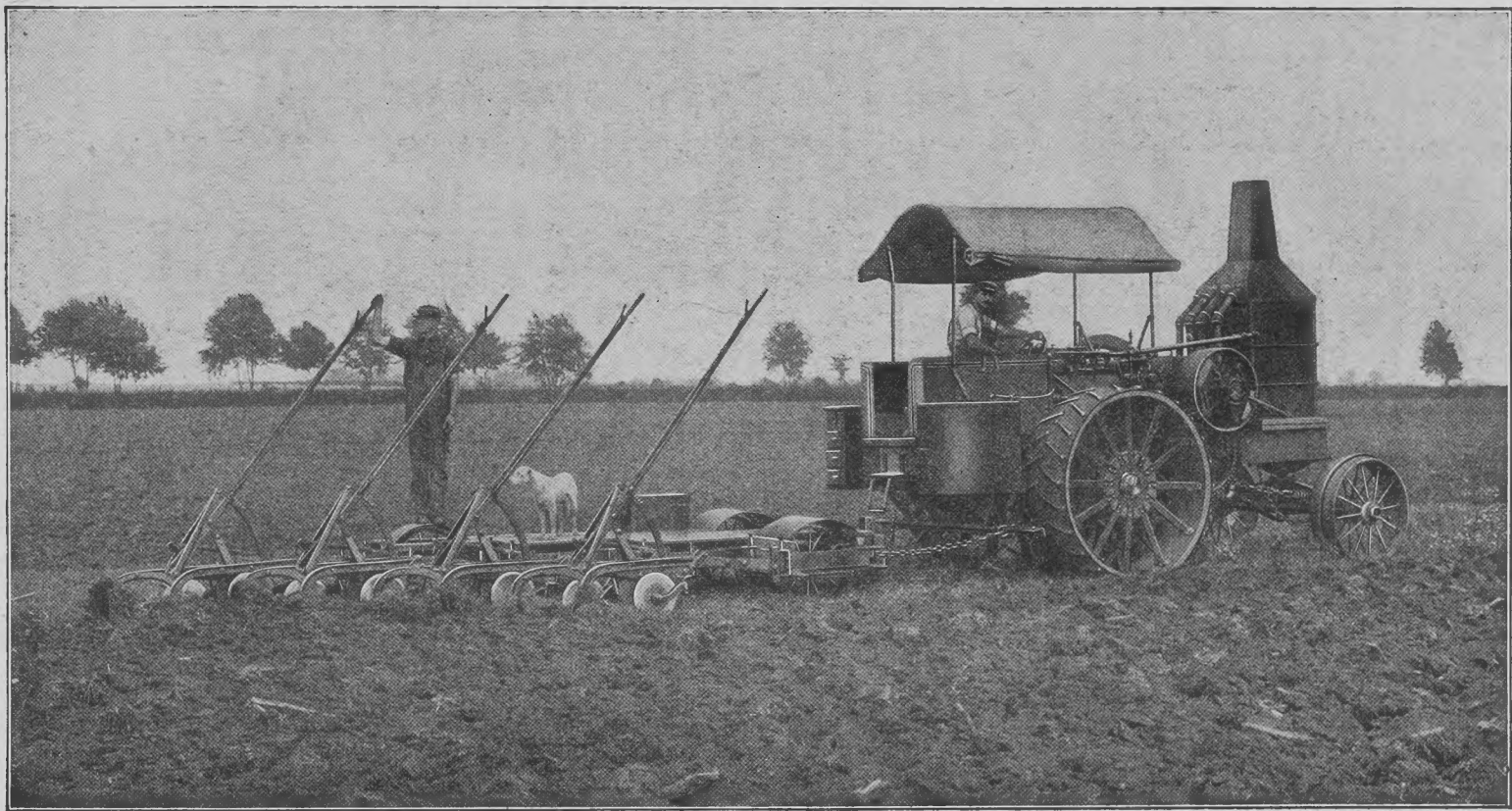
Nor'-West Farmer Limited, Publishers.

MARCH 5, 1910.

JOHN DEERE ENGINE GANGS

4, 6, 8, 10, 12, and 14 Bottoms

This photograph shows the immense possibilities of engine plowing. Think of the time and labor that can be saved. Think of the big acreage that can be farmed. With a JOHN DEERE Engine Gang you get results. Your profits will be worth while for a season's work. Hundreds of these outfits are in use in Western Canada.



BIG PLOWS for a BIG COUNTRY

Why turn a Single Furrow when you can turn from 4 to 14 furrows at the same time

Canada is a country of big farms, big possibilities and big profits—if you are a big farmer.

A general couldn't fight much of a battle with one soldier, and a farmer can't raise much wheat with a one furrow plow.

Get the Right Gang

Bottoms in pairs give great strength and make the plows run steady. The beams can be braced and each plow steadies the other. You notice these features on a two-bottom horse gang—you can't beat that construction.

Don't Clog

Curved frames give great clearance, and the JOHN DEERE Engine Gang will go through straw, trash, weeds and scrub where other gangs clog and cause trouble.

Screw Clevis

In addition to the regular clevis adjustment, each beam is fitted with a screw clevis when attached to the frame. A man can stand on the platform and adjust any one plow with a wrench while the engine and gang are working. This saves time and is a most important feature.

Works with Coulters

Rolling Coulters can be used on the JOHN DEERE Engine Gang just the same as on a sulky plow.

Level Platform

The platform is roomy, free from obstructions and so arranged that the levers are all in reach.

Standard Sizes

4 or 6 Plows on One Frame
6 or 8 Plows on One Frame
10 or 12 Plows on One Frame

Extension can be furnished for the 12 bottom frame allowing two more plows to be used; making 14.

ILLUSTRATED BOOKLET FREE

Write us to-day for Free Booklet showing JOHN DEERE Gangs being used with all kinds of steam, oil and gasoline tractors. Don't fail to get this book and learn all about engine plowing. A post card will bring the book. Mention this paper when you write.

JOHN DEERE PLOW CO. LTD.

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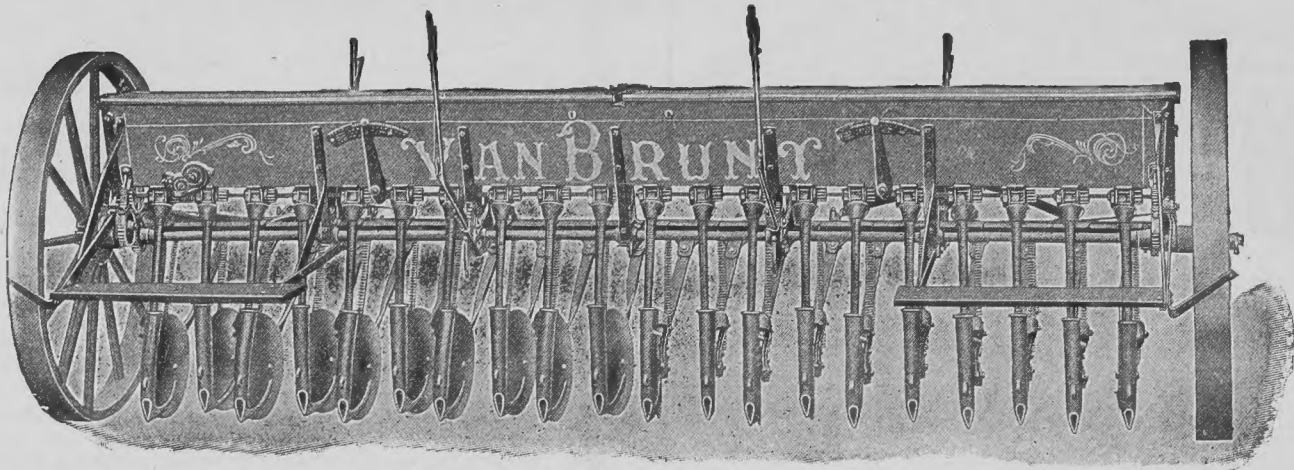
SASKATOON

EDMONTON

Light Draft Van Brunt Drills

If Horses could Talk their Verdict would be unanimously
in Favor of the Van Brunt for Lightness of Draft

Made in sizes
12, 14, 16, 17,
18, 20, 22
and 24



Single, Double
Disc and Shoe
Interchange-
able

Farmers Should Have Mercy on their Teams

Why pull a drill back and forth over your field that weighs from 300 to 400 pounds heavier than the Van Brunt, doing no better work—not even as good? You would not think of loading 400 pounds of rock on your drill in order to make it draw lightly.

The Van Brunt Made its Way by the Way its Made

The parts that go to make up a perfectly equipped and well balanced drill you will find on the Van Brunt.

AXLE. Continuous—(not stub axle which cheapens it.) Runs the entire length of the machine.

WHEELS. With long hubs (chilled.) Set well under the end of frame and are dust proof. Wheels run on a plumb spoke—(no pitch or gather.) Wheels on the Van Brunt need no pitch for the reason that the Van Brunt frame is so constructed that it does not spring or sag in the middle. Gather on wheels for wagons is all right, they run on a thimble skein or tapered axle. You would not think of adjusting the front furrow wheel on your gang plow with a gather. The same rule applies to wheels on drills and any implement with an axle of the same dimension.

FRAME. Is built of heavy angle steel and is thoroughly braced. The corners are solid, reinforced to prevent the slightest springing or rocking.

GEAR DRIVE. (Not chain.) No lost motion. Never wear out or bother. Both wheels are drive wheels.

TILTING LEVERS. The operator can change the angle of discs or shoes when the machine is in motion. A tilting lever is as great a necessity to a grain drill as a tilting lever is to a mower. (An exclusive feature of the Van Brunt drill).

FURROW OPENERS. The single disc furrow opener with toe scraper was first brought out by the Van Brunt Manufacturing Co. in 1900. Since then every drill concern in Canada has tried to copy the Van Brunt Furrow Opener. If the Van Brunt is good enough to copy they admit that we have the best drill. Then why buy an imitation when you can get the original and only successful light draft Van Brunt Drill. (Beware of imitations.)

DISCS. Every disc, single or double, is perfectly trued before leaving the factory. There is no wobbling of the discs used on the Light Draft Van Brunt Drill.

DRAG BARS. Are made of special steel manufactured expressly for the Van Brunt Manufacturing Co., having the correct amount carbon to give them strength. You will always find the Van Brunt furrow openers 6-inches apart, (not 5 in. or 7 in. as with other drills.)

BEARINGS. Are all case-hardened, guaranteed not to wear out. Read what we say on page 5 Drill Catalogue—our standing offer: "We replace, free of charge, all bearings that wear out."

DELIVERY. On both single and double disc Van Brunt Drill the grain is deposited further ahead in the furrow than any other drill sold in Canada. Ask the John Deere Agent to show you this feature.



"My Boss has the Light Draft Van Brunt Drill"

The Single Disc Drill became a successful machine when the Van Brunt Patent Disc Furrow Opener and Closed Grain Boot was introduced. Do not be deceived by statements of Competitors that their's is—just as good. An imitation is never as good as the genuine and original success. Be sure and see that the name "VAN BRUNT" is on the Hopper. Write for catalogue.

COLLINGWOOD FARM,
MARSHALL, SASK., 3rd Feby., 1910.

R. B. THOMPSON, ESQ., Lloydminster, Sask.

Dear Sir—I am writing a few words about the 20 hole single disc Van Brunt Drill we purchased of you last Spring. This machine is right up to the guarantee in every respect. We pulled it with four light horses and they seemed to have a cinch. Could seed from 16 to 20 acres a day here on short rounds. The oil in the disc is perfect. We seeded 106 acres with one oiling. As regards the job it does seeding, would say our new land was very rough and soddy but you could not see a seed on the top and was the most even stand of wheat I ever saw. The new land threshed 42½ bushels to the acre of wheat, and 25 on stubble, so can't say any more than that.

The machine is also very strongly braced, box trussed etc., and I don't see how she can possibly sag. The feed is true to a seed, almost, and acreage register accurate. Now, I never wrote in praise of any machine before but I'm just stuck on the Van Brunt, and all I've said and more is coming to the drill for it is certainly a dandy. I am, sir, yours truly

[Signed] E. J. WILLARD.



"My Boss has the other fellers"

JOHN DEERE PLOW CO. LTD.

WINNIPEG

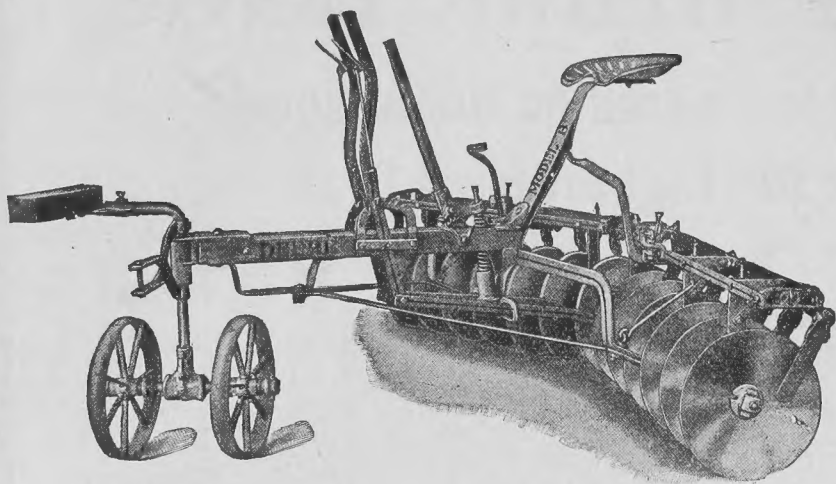
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DEERE DISC HARROW



Model B. Disc Harrow with Tongue Truck

The only really flexible disc harrow built. Spring pressure feature holds gang to their work.

Bearings are hard maple (soaked in oil).

Steel shanks or standards, are strong and give more clearance.

Oscillating scraper (adjustable), will scrape where most needed.

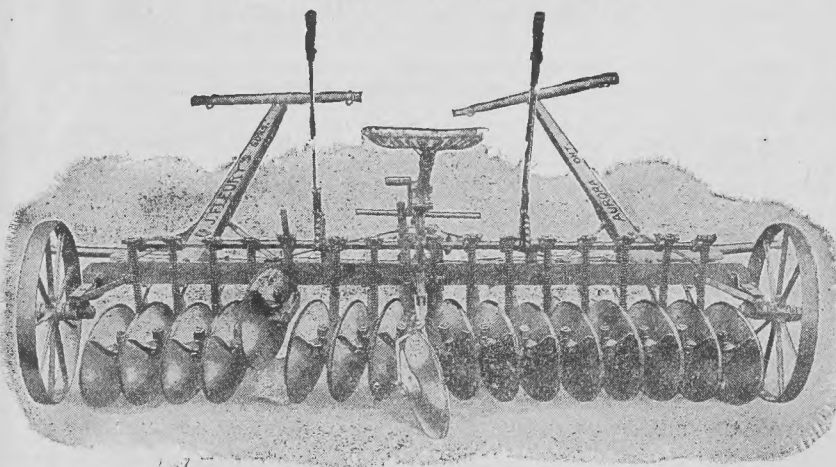
Each gang is equipped with a large bumper in centre, taking end thrust.

Tongue Truck.

Tongue truck is made universal to fit all makes of Deere Disc Harrows. The only truck made with set-over pole for 3-horse hitch.

Write for Catalogue.

CYCLONE DISC



Cyclone Wheel Disc Harrow

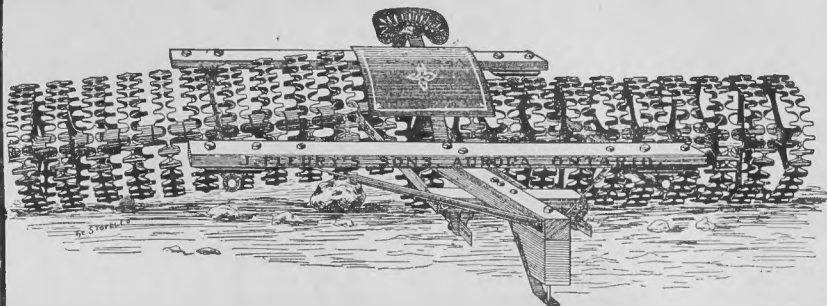
EASY to move from one field to the other. No danger of dulling disc on hard road. Can be backed or turned anywhere. Each disc is independent and equipped with a pressure spring, the same as a grain drill.

More or less pressure can be applied at the will of the operator. For discing stubble fields, summer fallowing, or plowed land it has no equal.

Can also be used as a weeder or cultivator, being so constructed that the discs can be set at any depth desired; the space between discs being thoroughly worked and much lighter draft than a cultivator.

write for Catalogue

FLEURY'S PULVERIZER



16 section, one pole	24 section, two pole
22 section, one pole	22 section, two pole { pulley }
22 section, two pole	24 section, two pole { hitch }

There is no implement more valuable to aid the sure production of good crops than a Pulverizer.

It is used with great advantage on new-plowed land, in rolling down flat and solid the turned-over sod, which rots much more quickly and completely after the use of the Pulverizer.

On dry and lumpy land it breaks down the clods and also does the work of an ordinary Land Roller.

Its greatest value is in its use for compacting the soil about the roots of plants, thereby inducing capillary action that keeps a flow of moisture from below to the roots; in an ordinary or dry season, without its use, the plants would suffer for want of sufficient moisture.

The Pulverizer is also used on light soil to prevent the ground from drifting and leaving a large part of a field of young plants with roots too lightly covered, or exposed to the dry, withering atmosphere.

The Fleury Pulverizer has a hinged (or broken) axle, which accommodates itself to rolling or uneven land.

The Fleury Pulverizer is more durable than others, for in addition to the bushing in the wheels, the ends of the hubs of the wheels are chilled—which greatly reduces the end wear on the wheels; (and found only on the Fleury Pulverizer.)

Write For Catalogue

The Fosston Grain Cleaner

THE FOSSTON

WILL enable you to rid your field of wild oats.

Will take oats out of wheat or flax better than any other mill made.

Absolutely the best cleaner of all kinds of grain ever invented.



Here are Fosston Facts

THE only Patented Feed Device—which allows grain in Machine only when running—Feeds full width of sieves.

A Patented Gang for separating wild or tame oats from wheat. Composed of a series of nine perforated zinc screens.

A Bottom Screen thirty-six inches long. Under this screen is arranged a patented cleaning rack to keep bottom rack clean. Special attachment for separating wild or tame oats from barley. Screens for cleaning all kinds of grain. Bagger can be attached in five minutes.

JOHN DEERE PLOW CO. LTD.

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Next to the Cultivated Human Voice

there is no chord so sweet, no utterance so eloquent as the silver-tongued tone of a

REAL PIANO

There are many instruments now being exploited that bear that name, but they are no more the piano of the cultured home—that splendid combination of nature and human skill than the sardine-tin of commerce can ever become the idol of the artist.

If you would be saved the endless worry and uncertainty of selecting from the multitude of advertised "names," get an opportunity to see and listen to a



Martin-Orme

Louis XV. Style

Hear what those who are using it have to say of its quality and tone; its magnificent workmanship, its artistic pre-eminence amongst all piano-furniture specialties and

you will have one, too

Write at once for the splendidly illustrated catalogue issued by the

Martin-Orme Co.

from its sole Western representatives

A.E. Soulis & Co.

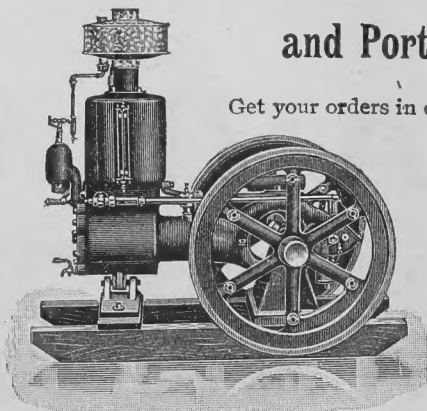
(Also Sole Agents for Packard and Stanley Pianos and Player Pianos)

328 Smith St. Winnipeg

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The Popular Gasoline Engine Lines are the "Flour City" Tractors and Stickney Stationary and Portable Engines



Get your orders in early for **Spring Plowing**; otherwise the demand being so great for this Popular Engine, you are liable to "get left."

The **Stickney Engine** will do your Winter and Spring grinding, sawing and feed cutting.

Our 1910 catalogues, beautifully illustrated may be had for the asking.

Ontario Wind Engine and Pump Co. Ltd.
WINNIPEG CALGARY

The Family Washing

was the biggest worry of my life. I looked forward to "washing-day" as the most dreary and back-aching that ever came into a woman's life, until I got a

"PASTIME" Washing - Machine

But the woman who said that did not belong to the Christian Scientist faith. She was a Christian woman, nevertheless, who believed that if she felt an ache it was there and could be removed in one way only—by removing the cause—whether it was a guilty conscience or an old-time wash-tub.

"Not Worth Mentioning."



His Reverence: "Could you manage our little bit of family laundry, Mrs. Flopp?"

Mrs. Flopp: "Family! why, bless you—for the whole congregation, sir, since I got my "PASTIME" washing machine. Any of the children can run it."

The "Pastime" is the simplest, strongest, most easily running machine on the market. Runs as easy full of clothes as others do that are empty. When your dealer has shown you it, you'll see at once the reason for this without any demonstration from him. Notice the heavy fly-wheel under the tub. This, with its finely adjusted ball bearings and high gearing, gives a leverage and "go" to the movement so that, with the tub full of clothes, it will make from 20 to 30 revolutions after you have released the handle—time enough to go across the room and give the baby its food and come back!

Will wash equally well the finest fabrics, bed clothes, carpets—in fact, anything that was ever washed in the old days of wash-tub slavery. On every machine is fixed this warranty: "We guarantee the Pastime Washing Machine to wash the clothing quicker, cleaner and to operate easier than any other hand-power washer made."

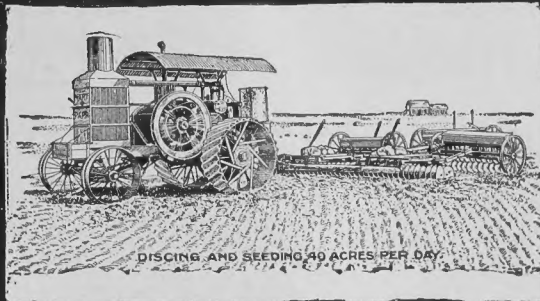
If your storekeeper does not keep "The Pastime," ask him to write for full particulars. If he will not, or forgets to do it, write yourself and send us his name.

**Parsons Hawkeye
Manufacturing Company**
773 Henry Avenue Winnipeg
Phone Main 6774

Dealers—Write for trial machine. It's the biggest seller in the field of Washers. Not only that, it stays sold, because it satisfies.



Does It Pay To Own



A Modern Farm Horse?

HART-PARR GAS TRACTOR ASK THE MAN WHO OWNS ONE

R. J. Cole, Yellow Grass, Sask.:—"In my opinion it pays very well on a farm of a section or more. We spring plowed and got into crop 160 acres that we could not have seeded otherwise; and now have our fall plowing all done, which we could not have done with horse power."

Harold McNally, Regina, Sask.:—"During the summer we broke 1120 acres of heavy land at \$4.00 per acre and plowed 360 acres at \$3.00. Total \$5560. Cost of Kerosene, Gasoline, lubricating oil, grease, labor and repairs, \$3129. Net earnings \$2431."

Fairfield Bros., Gardena, N.D.:—"We can cheerfully say that we are more than satisfied with our investment. We tried to make arrangements with some steam plowing outfit last spring to break 600 acres of turtle-back ground. No one would attempt it, as they claimed the ground was too rough, and no machinery could stand such punishment. We bought one of your gas tractors, and had the work completed in 60 days."

A. Minard, Fannystelle, Man.:—"I think it has paid me well, for the ground was so dry and hard last fall that I could not do anything with my horses."

Geo. O. Goulett, Oriska, N.D.:—"I have broken 500 acres of prairie, cut 500 acres of flax, and plowed 1000 acres of stubble ground this past season, and think that is showing well enough. I intend to buy another one in the spring."

J. T. & Ed. Worrall, Thorne, N.D.:—"We broke about 400 acres of new land, pulling six 14 in. plows; and plowed 600 acres of stubble, pulling eight 14 in. plows. Our average consumption of Kerosene was 50 gallons per day. Our repairs only cost us 55 cents. Our land is quite heavy and rolling."

Swerdfeger Bros., Bowville, Alta.:—"We have been threshing now for five weeks, and have not been laid up a half hour with engine troubles. We also broke 1360 acres in the spring, pulling seven 14 in. breaker bottoms $3\frac{1}{2}$ to 4 inches deep, and much of the land was rocky and heavy gumbo. Our cost for repairs doing this breaking was \$1.35."

Milnes & Noble, Claresholm, Alta.:—"We have broken 1000 acres with one engine, summer fallowed about the same with the other, double disced and seeded 2000 acres to fall wheat with the two, and will soon complete another 1000 acres of disking and harrowing for spring wheat. We will then fall plow one section with the two to complete the season's work."

Bowser & Patterson, Nanton, Alta., in 1909 season broke 957 acres of tough heavy sod, on stony ground, plowed 409 acres of stubble with packer and harrow behind plows, double disced and harrowed 541 acres, threshed 77,241 bushels of grain, and are now running a large roller feed mill with this engine.

J. T. Henning, Welling, Alta., in 1909 broke 530 acres sod, did 485 acres stubble plowing, double disced 1000 acres, and threshed 115,000 bushels of grain. A pretty fair record for one season's work.

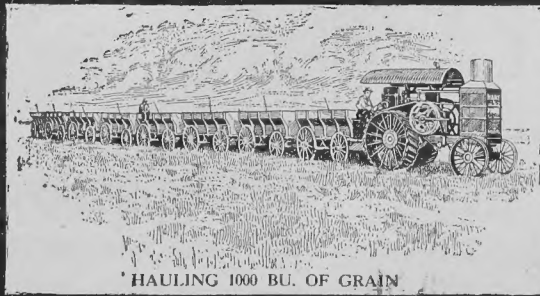
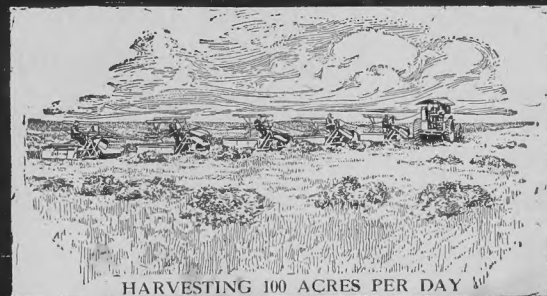
H. Morrison, Drummond, Mont.:—"It pays to own a Hart-Parr Tractor for different reasons. 1st. One can plow, harrow, seed, and do much other work where great power is necessary for one-third what it would cost to do the same work with horses. 2nd. One can do his farm work at the right time. 3rd. When you are through with your work, you can run your engine into the shed and your feed bill stops."

Frank Webster, Straw, Mont.:—"I bought my engine in the spring of 1908, and that year did \$5200 worth of work at a total cost of \$1611, besides breaking and seeding 500 acres from which I harvested 13,000 bushels of wheat this year. I pulled into a neighbor's field last June on Monday noon, and left at dark Saturday, and he gave me his check for \$1015 for my work that week."

J. R. Smith, Beach, N.D., in the 1909 season, with two Hart-Parr Tractors, broke and crushed 3,000 acres, disced and seeded 2,000 acres to flax, harvested the flax, pulling five binders behind each engine, threshed it with one engine and hauled it to the elevator with the other. He raised 32,000 bushels of flax which he sold for \$48,000. His total operating expenses on this 2,000 acre crop were \$11,085.

HART-PARR CO.

28 MAIN ST.
PORTAGE LA PRAIRIE
• MAN •



Paragraphs on Agricultural Education.

By Rusticus.

The matter of agricultural education is one that continues to be discussed on all sorts of occasions, which is a sign that it is being thought about a good deal, whether great progress can be reported or not. No doubt can exist as to the right functioning of agricultural schools and colleges where they exist. There may be some doubt as to whether great progress is being made in agricultural teaching in the elementary schools of the country though the subject has been explicitly adopted as part of the curricula of the common schools in all the western as well as eastern provinces.

The placing of this subject on the school programme of studies has its beginning in the general life and influence of the community, rather than in the working out of the schoolmaster's theory of what the content of education should be. It is probable that if the schoolmaster had his way the school programme would be almost purely scholastic in character, but other influences operate to modify his influence. It is now a common idea that the school functions and operations should relate themselves to the community life. This is a reaction against the individual ideal in education and may be called the citizen or sociological ideal. The commercial or practical aspects of arithmetic, the civic aspect of history teaching and all sorts of manual and industrial training for both boys and girls are expressions of this change in educational thought.

There is another important influence acting strongly in this direction in relation to the question, particularly of rural schools. We are said to be in the midst of what is called a "back to the land" movement. Some regard this as a fashion that has become unaccountably strong. There is a better reason. The increase in the cost of commodities, due in an important measure at least to the wonderful production of gold, against which the price of commodities is measured, has made land a splendid possession during the past ten or twelve years. The "back to the land" habit is not merely a fancy. It pays.

Another related phase of the rural movement is the idea of counteracting

the "up to the city" movement. It must always be the case that many of the boys and girls bred on the farm will seek the cities for the realization of the ideals that the reading of literature holds out to them, and it is not likely that farm life will prove attractive to all anyway, and the cities receive the restless ones. It is thought by many that this practice is too prevalent for the good of both the individual and for the country. In this view the encouragement of an interest in things rural and agricultural is a good part of state policy in relation to education, in order to check the movement of young people from the farm.

There seem to be some difficulties in making good on this scheme. With respect to agricultural science, even of an elementary sort, it is to be borne in mind that agriculture is a rather complex applied science, embracing as it does a knowledge of the parts of several other sciences such as geology, chemistry, physics, botany, meteorology, etc., and that the age of the public school pupil is not generally that in which the principles and particular terminology of any science are at all appreciated, nor are the time and equipment at the disposal of the rural teacher such as would make possible the teaching of any well organized body of even elementary science.

A greater difficulty is the matter of qualification or want of qualification of the teacher. The schools of the West, like those of all other parts of the world, are undergoing the feminizing process, and there is no reason to hope for any slackening in the process. Most of the teachers of the rural schools are lady teachers, and most of them are young teachers. It is very common for the inspectors to assist those teachers in the country who have shown ability in country teaching to obtain town or city schools, and it is not generally the case that the most resourceful teachers are found in the country. In all but a few cases the teaching of agriculture does not flourish in the hands of the ladies.

The nature study movement was thought to be the real thing in the solution of the rural school problem. An occasional teacher can show good results, but inspectors who tell the truth

about it, and some of them do, say it is the most systematically neglected subject in the programme of school work. It may be that the normal schools have not yet got the spirit of the work, or that they are not trying hard enough to give teachers the right spirit, or the work is not yet organized or organizable to the point to suit the tastes or habits of work of the teacher. In any case, the subject is not making good, whether it is the fault of the subject or of the operator. It seems to be rather a piece-meal and snapshot proposition for the school "marm" of orderly mind and habits.

It has often occurred to us that if those who were trying to work changes in this matter had not called for a new deal in school subjects that more would have been accomplished than has been under the direction of the nature work promoters. Before the name nature work originated, we had, as we still have, a nature subject on the programme of studies that was and is still pining for more national and natural treatment. This is the subject of geography. We believe that an organization of field geography is necessary for right teaching of the subject, just as laboratory or field work are necessary in secondary school science; also that the larger atmosphere of general physiographic, geological and biological work is better for the fostering of even the nature study attitude than the study of the hen and dog and their claws in the school room. The general beginning seems an appropriate beginning. The teacher who can organize and systematize field work in physiography and in local vegetation and animal life will be conferring a benefit.

This does not, however, settle the question of agriculture in the public schools. It is a readjustment of the nature work which is not agriculture, although it bears some relation to it. As said before, it is not natural to expect great accomplishment in science teaching among pupils of public school age, but some useful work can be done. If the amount expected were less, and the method of treatment improved, the result would be better. Work in the public schools should be limited chiefly to soil work and tillage and all work should be taught by demonstration. It should embrace a study of the origin of soils, mechanical analysis and classification, texture, tillage and the movements of the water of soils, temperature, and causes affecting temperature, etc. The scientific study of the growth of crops and the matter of the qualities and

care of different classes of animals is special and explicitly technical, while soil is kindred to the tastes of the man with either garden plot or farm and is an introduction to the higher interests already spoken of.

Some attention is being directed towards the matter of agriculture in the secondary schools. Among many the wisdom of trying to combine agricultural courses with the established high school courses of study is regarded as inexpedient. In some cases, high school agricultural courses have been established and among others the question has not yet been settled. The objection to establishing agricultural courses in high schools seems to be that any agricultural work that has been tried has not worked out right. The reason for its failure is probably that the scholastic atmosphere of the high school is so strong that it defeats assimilation. There is no reason why it should not succeed, but it must not be half done. Like all technical courses, it takes money and men, and the country will have to dig up handsomely for it. It will require a demonstration farm as part of its equipment, and well-trained men. It should be an advantage to have available to the agricultural student at the high school such parts of the liberal arts course as he wants, and the centralization of the different courses should make for economy.

It has become the practice of recently founded universities to give to agricultural education a prominent place in university studies. The science of agriculture is entitled to the aid in organizing and furthering its knowledge that has always and should always be considered as one of the prime functions of a university. It is being considered one of the chief obligations of a state-supported university to give its aid to solving the problems of the civilization of a state. The university is losing the intellectual sequestration which in the past was associated with the institutions of the scholar. A modern university is a peoples' university, both with respect to the forces which give it origin and with respect to the incidence of its benefits. Its benefits are direct as well as indirect and relate to the industrial as well as professional and purely intellectual interests of a state.

Most of the troubles that we see coming down the road toward us will pass right by if we do not stand at the open gate to beckon them in.



The way in which Alberta Red grows when it gets a chance.



Comments, discussions, experiences pertaining to general farm work, methods, or practices are cordially invited. Your experience will help your fellow farmer.

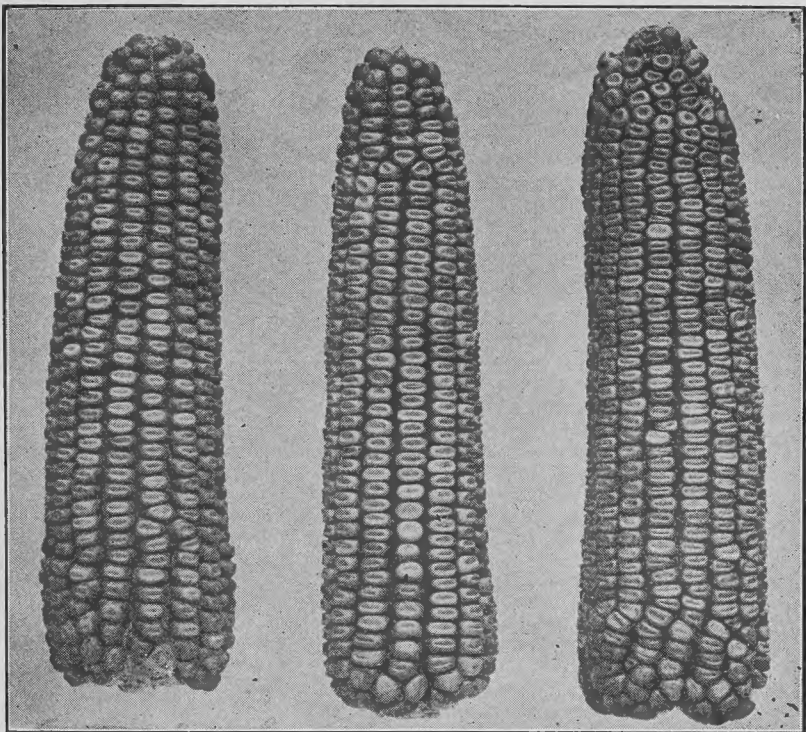
Corn Growing Not a New Idea in Western Canada.

Recent newspaper articles would lead one to believe that the idea of growing corn in the Canadian West was of very recent conception. Most of our readers are familiar with the vari-

vest a few hundred bushels of ripened corn. Each year sees greater progress made in improving our cereal crops. Men who failed to ripen corn at first are able to do so now, and we firmly believe that it will be a matter of only a few years until the growing of corn for the grain will be common with the best farmers in many places. Fodder corn, as a profitable crop, has long since passed the experimental stage.

Corn is admirably adapted to our soil conditions, although it is true that, like all other plants, it has a preference for certain soils. The corn plant likes best a good friable loam and can make use of a wonderful amount of fertility.

That the northern limit of the corn belt has not yet been fixed is as plain as the nose on a man's face. We do not expect to be able to grow and mature the same types of corn as have made the Mississippi valley States

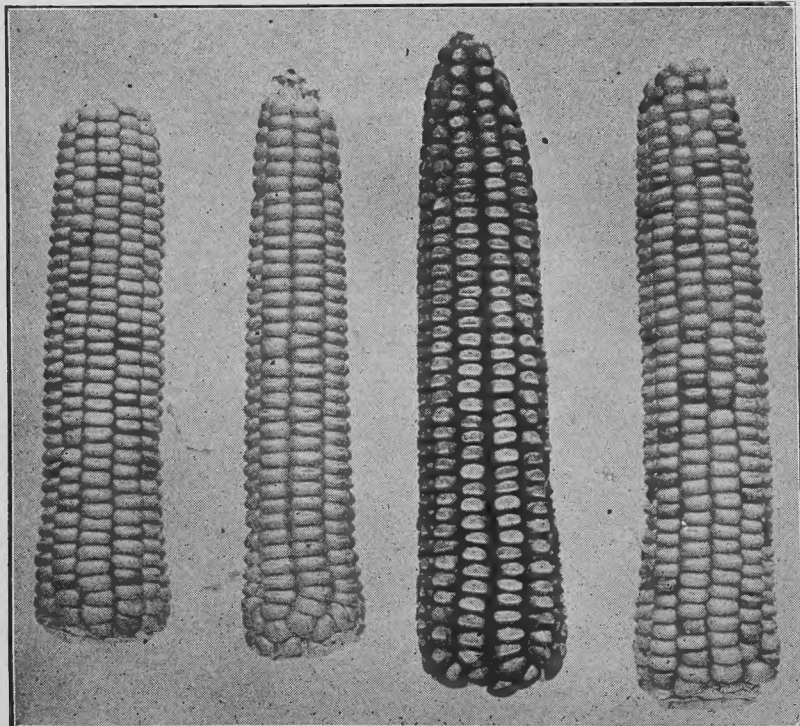


Types of dent corn matured for the past six years by E. R. James, Rosser Man, Reading from left to right the varieties are: Dakota Sunshine, Acme Fodder, and Square Deal.

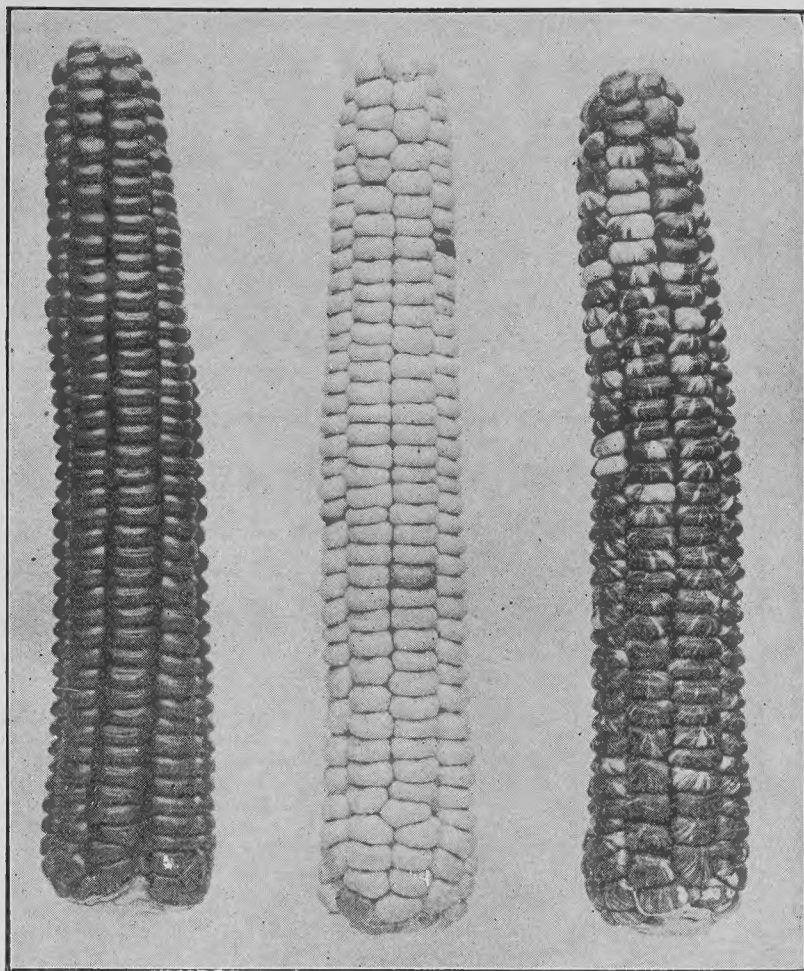
colored squaw corn that the Indians have grown for years and years, and for several years farmers all over the Canadian West have been growing the improved varieties, mostly as a fodder crop, but there are not a few men who have been highly successful in maturing the grain for seed and feeding purposes. At the Brandon Experimental Farm last year, Mr. Murray informs us, had it not been for the August frost that occurred in that locality last fall they would have been able to har-

vest a few hundred bushels of ripened corn. Each year sees greater progress made in improving our cereal crops. Men who failed to ripen corn at first are able to do so now, and we firmly believe that it will be a matter of only a few years until the growing of corn for the grain will be common with the best farmers in many places. Fodder corn, as a profitable crop, has long since passed the experimental stage.

There are few plants that possess the power of adaptation to a greater degree than corn. We find it growing on the North American continent all the way from hottest Mexico to the prairies of our own West. The corn of the Southern States is of a vastly different type from that grown in what is commonly known as the corn belt



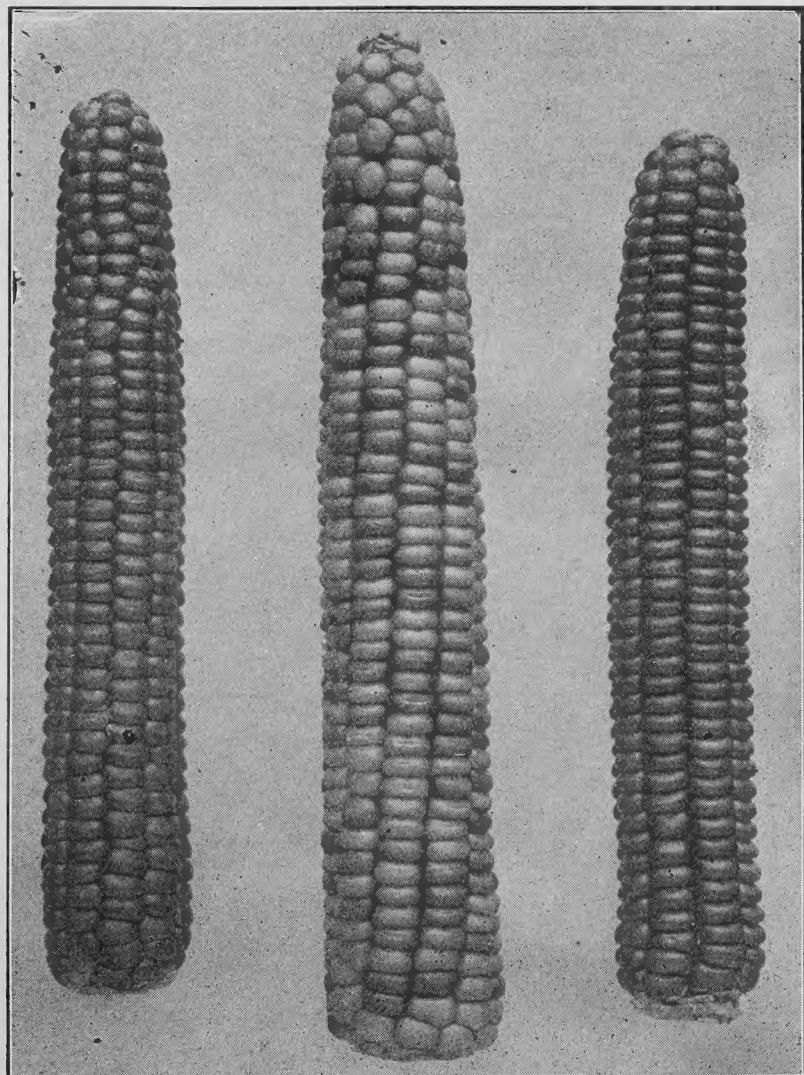
Showing results of cross-breeding. Reading from left to right: Ear No. 1 represents the resultant variety in the cross of North-western Dent and Dakota White when the Dakota White was used as the mother plant; Ear No. 2 is a good type of the Dakota White (flint) variety; Ear No. 3 represents a good type of the white-capped North-western Dent; Ear No. 4 represents the type secured in crossing these two varieties when the North-western Dent was used as the mother plant.



Ear No. 1 shows results obtained by re-crossing the first cross of North-western Dent and Dakota White with the native Squaw Corn. Ears 2 and 3 are types of Squaw Corn.

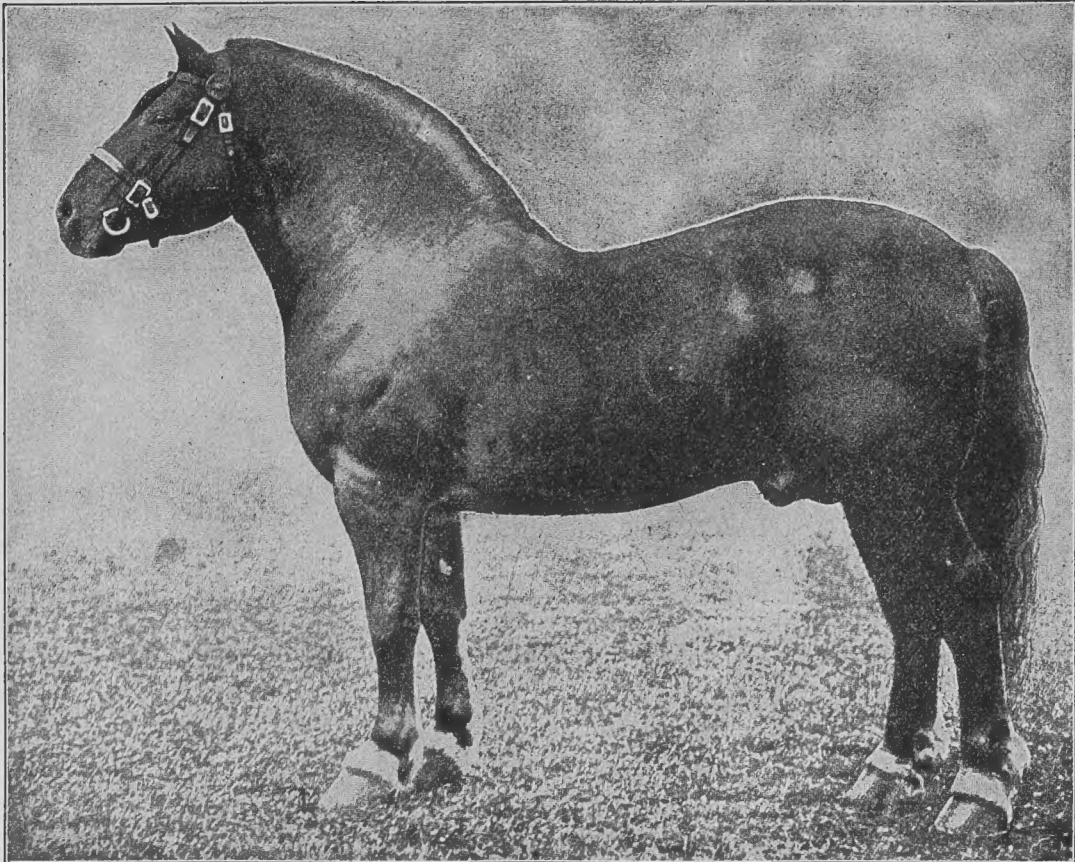
proper. As the corn plant is brought north, there is a tendency to smaller ears, shorter kernels, and the dent characteristics are replaced by the flinty qualities. These all make for earlier maturity. Some of the southern varieties require from 120 to 130 days to reach maturity. The ears are large, cobs big, and kernels deep. As

we come north, we find the ears becoming somewhat smaller and the period of ripening considerably shorter. The famous Reid's Yellow Dent of the corn states ripens in from 100 to 110 days, depending altogether on the locality and the strain. This is a dent variety, but the type of Reid's Yellow Dent grown in Minnesota is vastly different



Types of flint corn grown by F. R. James, Rosser Man. The varieties here represented, reading from left to right, are: Gehu, Nebraska Fodder Corn and Patterson.

The Heavy Horse for Western Canada



Suffolk Stallion

Facts About the Suffolk Horse

1. The oldest pure-bred horse in the world.
2. Clean legs, strong pasterns, best of feet and bone closely approaching the Thoroughbred.
3. Unequalled for endurance, constitution, longevity, and will thrive and do well on less keep than any other breed.
4. Unequalled as a cross on all types of mares either heavy or light.

His Record

1. Winner of 14 (out of 23) championships open to all heavy breeds and more than half the seconds at the annual shows of the Royal Agricultural Society of Great Britain, also minor championships in various parts of the world.

2. Winner of the four-horse team (open to all heavy breeds) at the Great International Horse Show held at the Olympia, 1908.

The successes of half-bred Suffolks at Islington, Olympia and other leading shows are very numerous.

MESSRS. JAQUES BROS., the Suffolk Horse Ranch, Lamerton P.O., Alta.

(Railway Station, Alix, C.P.R., Lacombe Branch,) the largest importers and breeders of Suffolk Horses in Canada beg to announce they have sold all their Stallions and fillies and are importing another consignment which will be shown at

The Regina Show (March 22nd to 25th)

The Calgary Show (April 5th to 8th)

These horses will be picked from the best studs in England and will all be subject, as in previous shipments, to the strictest examination as to soundness and conformation.

The Suffolk has now proved that for crossing on all types of Western Canada mares he is without a rival. He has also gained this position in Australia, the Argentine, Ireland and England, etc., etc.



Corn in shock. Result of crossing Northwestern Dent with Dakota White

from that grown in Southern Iowa and Illinois. As this variety is brought north the ears become smaller and the dent less conspicuous. The dent varieties have been grown in the Dakotas and northern Minnesota for a number of years. The dent characteristics prevail there to a large extent, but the ears are a great deal smoother than were their ancestors. The percentage of purely flint varieties in the northern states is also great.

In Western Canada the varieties thus far ripened have mostly been flint, although we have seen some really fine specimens of dent corn ripened right in Manitoba, and we have at least one corn breeder in the province. There are many others who have been and who are raising and improving the corn crop both for fodder and the grain, but Mr. E. R. James, Rosser, Man., is breeding corn in a systematic manner. He commenced this work in 1904 with seed from the state of North Dakota, securing one pound each of Northwestern Dent, White Dakota (flint), Gehu (flint), Burleigh County Mixed, Acme Fodder (dent), Dakota Sunshine (dent), and square deal. He also secured four varieties of Squaw corn from the Indians at Griswold, Man. For six years now Mr. James has been breeding for early maturity and also to increase the size of the ear, especially the length. Corn has ripened every year for the past five years and they have not been scrub ears, either, as the illustrations show. Besides the varieties above mentioned, some "Patterson" corn was also secured. Last year pop corn was grown with splendid success, as may be seen in the cut. The ears of pop corn were as large and shapely and well matured as any we have ever seen in the south. Western boys and girls may as well raise their own pop corn as not. A variety of fodder corn from the state of Nebraska is also being tried. It matured seed in 1908 and last year, but it is much later in maturing than the other varieties.

Corn breeding is more difficult than that of breeding cereal grains because of the fact that the corn plant fertilizes by cross breeding, while wheat, oats and barley do not. In corn, the tassels represent the male elements and the silks the female. The pollen from the tassels blows over a whole field and thus if different varieties are planted in the same field they are sure to mix.

Mr. James is attempting to breed up a new strain more suited to this climate than any yet obtained. In 1904 he commenced by crossing the Northwestern Dent with the White Dakota, in one case using the dent variety for the mother plant and in the other the flint for the mother plant. Two rows, one of each variety, were planted side by side. In the first case the row of Northwestern Dent was detasselled so that it became the mother plant. Its silks were fertilized by the pollen from the tassels of White Dakota and the cross thus effected. Two other rows of the same variety were also planted. In this case the row of White Dakota was detasselled that it became the mother plant. The

silks of Dakota White were fertilized by the pollen of Northwestern Dent, the male plant this time, and a cross effected as before, with the mother plant changed about. The results of the cross are shown in the illustrations. As might be expected, there was a great variation in type. Now this crossing has been carried a step further with the idea of still further improving the early maturing qualities of the corn and to try if possible to secure a variety that will be safe in this country. This product of the first cross was again crossed with native squaw corn. Here, also, a great variation is shown and it will take several years to establish a type that will breed true. But it can be done. The Northwestern Dent is a white-capped red variety and dented, while Dakota White is a white flint variety. The former is mostly 12 to 14 rowed, while the latter usually has 8 rows of kernels on each ear. The resultant cross runs mostly 12 rows to the ear.

In this work of six years the improvements noted have been a lengthening of the ears and the increasing height of ears on the stalk. The results, of course, are not conclusive—the work has not been carried on long enough yet. In 1908 corn coming from the first cross referred to above and known as No. 1 was planted on May 15, it was coming up on June 2, in tassel on July 20, in silk on July 25, and ripe on September 7, being 97 days from the date when it first appeared above the ground, or 115 days from planting. In the corn states, corn will be seen sprouting above ground in four or five days; here it often takes two weeks and more. The "Patterson" corn ripened in 99 days from the first appearance above ground, Gehu in 100, White Dakota and Acme Fodder in 101 days each, while it took 121 days for the Nebraska fodder corn to ripen. Last year the White Rice pop corn ripened in 110 days from planting; the cross-bred varieties in 92 and 100, respectively; two varieties of Squaw in 87; improved Calico Squaw, 102 days from planting; some improved mixed Squaw, 91; improved white Squaw, 95; Nebraska, 109; Acme Fodder, 105;

Square Deal and Dakota Sunshine, 109; Burleigh County, 105; "Patterson," 105. There is thus a wide difference in the time required for ripening in different seasons.

We have previously discussed rather fully methods of planting, cultivating and caring for the corn crop. Mr. James has so far used only a grain drill, setting it so that the rows will be about three and one-half feet apart. Fall plowing is best. Cultivate the seed bed well and it is no use to plant until the ground has become thoroughly warm. Good cultivation between the rows after the plants are up is absolutely necessary, but this should not be too deep, especially after the plants get up to some size. As corn reaches maturity the root system spreads out near the surface. Deep cultivation at that time will cut off many roots and lessen greatly the ability of the plant to gather up moisture at a time when it is most needed. Shallow cultivation near the end of the season will keep a good mulch between the rows and hold the moisture in. The seed is planted at the rate of about one-half bushel per acre, and all tested before being put into the drill. Seed ripened at Rosser has germinated 95 per cent. in a germination box, despite the claim of many that Manitoba ripened corn will not grow. One year the yield of fodder figured out at 23 tons per acre; it will average 15 tons or better every year. The yield of corn fodder at the Manitoba Agricultural College this year was 20 tons per acre. Mr. James has every confidence that it will be possible to grow corn for the grain in this country. It will take a few years yet to do it, but the time is fast coming. In the meantime the main body of farmers should grow it for fodder. There may be better crops than corn fodder and oat sheaves to grow in this country for live stock feed, but what are they?

Clean the Seed.

Some farmers never get time to clean their seed grain. They forget it all winter long, then are in too big a hurry in the spring. There are still a few weeks of grace left for this job, but it ought to be done at once.

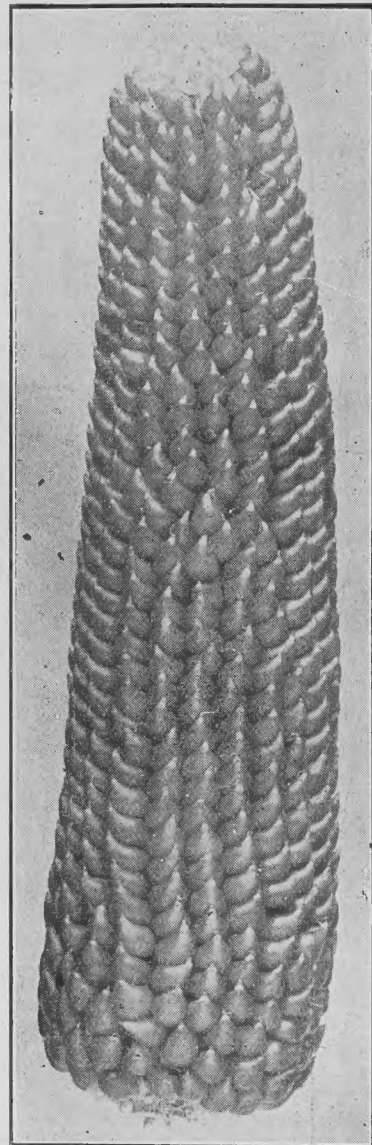
And do it well. The fanning mill may be a homely machine, but there are great possibilities in its use.

Do it now.

When to Use the Soil Packer.

A Clandeboye, Man., subscriber wants to know the best time to put soil packers on the land, before or after seeding.

We should advise using the soil packer after seeding. The object of the soil packer is to create a moisture zone a few inches below a mulch of loose soil. When grain is drilled on a properly prepared seed bed, a field that has been well plowed and harrowed, and the soil packer then used we have



White Rice pop corn, grown last year by Mr. James. This is a very typical ear and is as good as one would expect to find even in the corn country.

the desired conditions. The packer presses the soil firmly about the grain seeds, increases the moisture content in that zone, and consequently hastens germination. The plowing has broken up the capillary condition with the subsoil and the action of the packer restores this and at the same time puts a cap on top in the shape of a soil mulch which reduces the loss of moisture to the minimum.

Wants Information on Grain Stokers.

A subscriber wants information re grain stokers from farmers who have used them. He wants to know their opinions concerning them, their advantages and disadvantages.

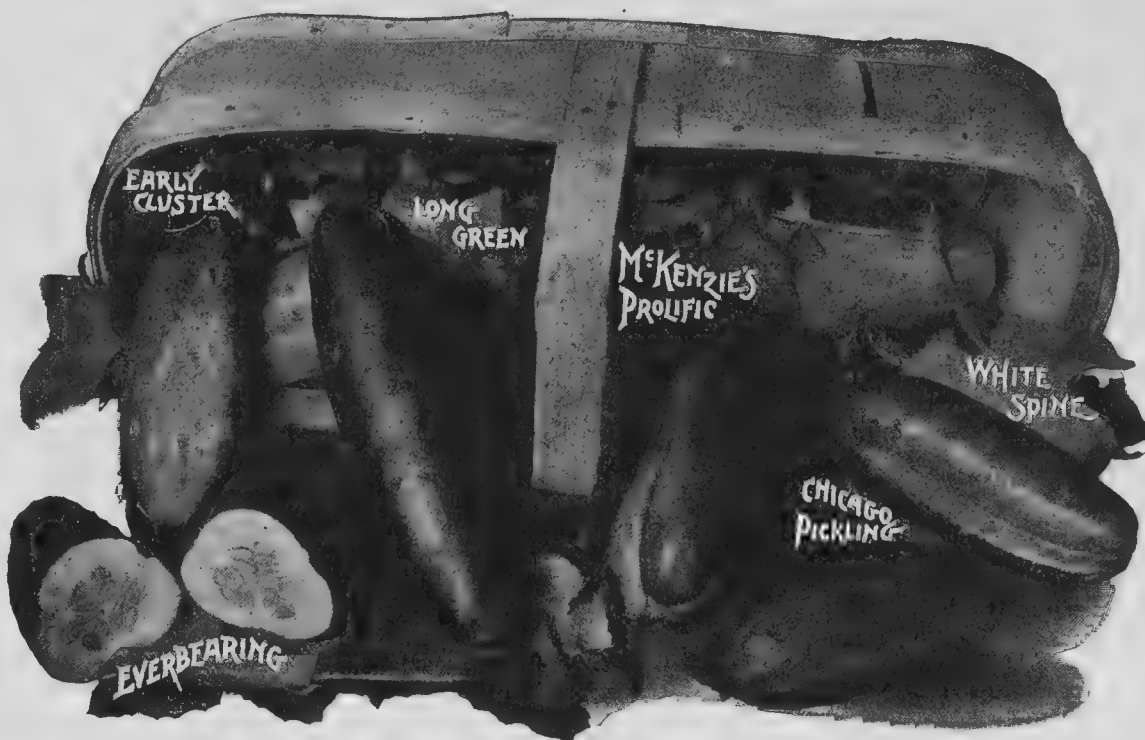
Just put on your glasses and take another look at the seed grain to see if there are not some weed seeds in it, after all?



A view of the 1909 crop of corn on the farm of P. M. Bredt & Sons, Edenwold, 8 miles North of Balgonie, Sask. Just over the left shoulder of the man in the picture can be seen the head of another man on horseback practically hid by the density and tallness of the corn. In the foreground is a crop of mangels, which, as will be observed, comes up to the man's knees, thereby reducing the apparent height of the corn.

Western Canada's Greatest Seed House

McKENZIE'S SPECIALLY SELECTED SEEDS



TO MAKE the BEST of HIS OPPORTUNITIES is the FIRST DUTY of every PLANTER. To NEGLECT DISCRIMINATION in his CHOICE of SEEDS means great FINANCIAL LOSS. MANY a GARDENER or FARMER MIGHT HAVE BEEN PROSPEROUS had he not OVERLOOKED the one WEE but PIVOTED POINT ESSENTIAL to his SUCCESS—HIS SELECTION of SEED.

McKENZIE'S SEEDS are TRUE to NAME, FULL OF LIFE, HIGHEST QUALITY, HIGHEST GERMINATION and CAREFULLY SELECTED for the WEST.

Big Crops from McKenzie's Selected for the West Seeds

Inherited Pedigreed Seed Grain

The IMPORTANCE of SEED SELECTION and the ORIGIN of GROWTH is of VITAL IMPORTANCE to EVERY SEED BUYER.

Our SEED GRAINS are so handled from JUDICIOUS SELECTION, CULTIVATION and ENVIRONMENT that the CONSTITUTIONAL VIGOR and HIGH GERMINATING POWER make them a SUPERIOR TYPE.

GROWN in SMALL PLOTS, from HAND SELECTED, HIGHEST DEVELOPED, FULLY MATURED KERNELS of STRONGEST VITALITY, SUCH as INHERIT the REAL, STRONG, ROBUST SEED LIFE NECESSARY in this WESTERN COUNTRY to PRODUCE ABUNDANTLY.

Prices per Bushel—F.O.B. Ex W'h'se
Brandon Calgary

McKenzie's Gold Standard Red Fife		
Wheat	\$1.05	\$1.85
Gilt Edge, Extra Selected Red Fife		
Wheat	1.50	1.65
Special Strain Banner Oats	.90	1.15
Newmarket Oats	.90	.90
Six Rowed Mensury Barley	1.05	1.15

Cotton Bags 25c. each.

In quantities over 10 bushels deduct 5c. per bushel.

A Fine Garden Selection

	Prices Postpaid—pkt.	oz.	1/4-lb.	1/2-lb.	1-lb.
BEAN—McK's Detroit Wax	.05		.15	.25	
BEAN—McK's Matchless Greenpod	.05		.18	.30	
BEET—McK's Extra Early	.05	.10	.35	.55	\$1.00
BEET—McK's Flat Egyptian	.05	.10	.25	.45	.80
CABBAGE—McK's Winningstadt	.05	.20	.50		
CABBAGE—McK's Early Jersey					
Wakefield	.05	.20	.50		
CAULIFLOWER—McK's Early					
Snowcap	.25	\$3.00			
CELERY—McK's White Plume	.05	.25	.75		
CELERY—McK's Giant Pascal	.05	.20	.60		
CARROT—McK's Oxeheart	.05	.10	.25	.40	.75
CORN—McK's White Cory	.05			.25	.25
CORN—McK's Old Squaw	.05			.25	.25
CUCUMBER—McK's Long Green	.05	.15	.45	.85	1.50
CUCUMBER—McK's Chicago					
Pickling	.05	.15	.35	.65	1.25
LETTUCE—McK's Prairie Queen	.05	.25	.65		
ONION—McK's Selected Globe					
Danvers	.05	.15	.40	.75	1.40
ONION—McK's Yellow Globe					
Danvers	.05	.15	.45	.85	1.60
ONION—McK's Red Wethersfield	.05	.15	.55	1.00	1.85
PEA—McK's American Wonder	.05			.35	.35
PEA—McK's Manifold	.05			.35	.35
RADISH—McK's Rosy Gem	.05	.15	.35		1.00
TOMATO—McK's First of All	.10	.35	1.20		

New Crop Grasses and Clovers

The EXPERIENCE of EXPERTS, EXHAUSTIVE TRIALS and TESTS PROVE CONCLUSIVELY that the PRODUCTIVE CAPACITY of the SOIL, can be IMPROVED and RETAINED only by CROP ROTATION THROUGH the GROWING of GRASSES and CLOVERS.

NOR is THERE ANY CROP so ABSOLUTELY ESSENTIAL to SUCCESSFUL FARMING. The STOCK THRIVES BETTER, the MARKET PAYS HIGHER PRICES and the PROPERTY ENHANCES in VALUE.

BE SURE of the SEED you SOW. Our GRASS and CLOVER SEEDS are NORTHERN GROWN, of the HIGHEST TYPE, CHOICE and RECLEANED.

Price per 100 lbs.—F.O.B. Ex W'h'se
Brandon Calgary

Timothy—Beryl	\$7.50	\$8.50
Western Rye—Agate	11.50	12.50
Brome—Beaver	13.00	13.50
Clover—Common Red	21.50	23.50
Clover—Alisike	19.00	21.00
Alfalfa—Lucerne	24.00	25.50

Kentucky Blue Grass, 30c. lb. postpaid.
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Cotton Bags 25c. each.

We Study the Needs of the West and Our Seeds Suit its Soils Best

McKenzie's Superior Cucumber Seed

OUR CUCUMBER SEED has given SUCH BIG CROPS and UNIVERSAL SATISFACTION THROUGHOUT the WEST, that it is WITH DIFFICULTY we are ABLE to SUPPLY the DEMAND, and we SUGGEST ORDERING EARLY.

	pkt.	oz.	pkt.	oz.
McKenzie's Prolific	10c.	25c.	Chicago Pickling	5c.
Early Cluster	5c.	20c.	Long Green	5c.
Everbearing	5c.	15c.	White Spine	5c.

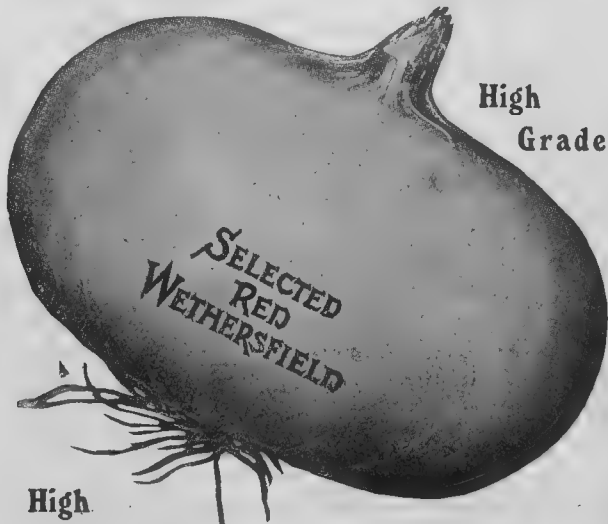
McKenzie's Selected Seed Potatoes

The SEED POTATOES we SEND OUT are GROWN BY OURSELVES. They are the BEST THAT CAN BE HAD from ANY SOURCE, are STRICTLY TRUE to TYPE, HAND SORTED, SELECTED STOCK as ANYONE will be PROUD to PLANT.

Prices (Bags Free)—F.O.B. Brandon over 5 bus. Ex W'h'se Calgary over 5 bus.

	per bus.	per bus.	per bus.	per bus.
Wee MacGregor	\$1.60	\$1.50	\$2.10	\$2.00
Bovee	1.75	1.60	2.25	2.10
Early Ohio	1.75	1.60	2.25	2.10
Manitoba Wonder	1.65	1.50	2.15	2.00

High Bred



High Germination

High Life

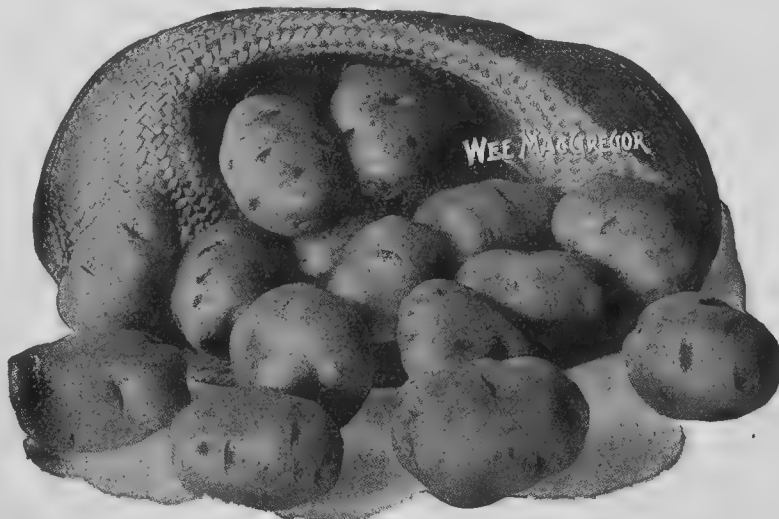
McKenzie's Selected Red Wethersfield Onion

OUR STRAIN of this SEED is ABSOLUTELY UNSURPASSED is GROWN from BULBS CRITICALLY SELECTED for SIZE, SOLIDITY, COLOR, SHAPE and SMALL NECKS.

Pkt. 5c., oz. 20c., 1/4-lb. 65c.
1/2-lb. \$1.25, 1-lb. \$2.25.

Catalog

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Seedsmen to Western Canada

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Every Variety is Selected and must be Absolutely Pure

THE NOR'-WEST FARMER

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ADVERTISING RATES.

Transient advertisements, for less than three months, 14 cents a line (each insertion). Terms for longer periods on application.
All advertisements estimated on the agate line—14 lines to an inch. A column contains 180 lines.

Copy for changes in advertisements should be sent in not later than the 25th and 10th of the month to ensure classified location in the next issue. Copy for new advertisements should reach the office by the 27th and 14th of each month.

TO OUR SUBSCRIBERS.

It is the intention of the publishers of The Farmer to admit into its columns no but reliable advertisers, and we believe that all the advertisements in this paper are from such parties. If subscribers find any of them to be otherwise, we will esteem it a favor if they will advise us, and we will at any time give our personal attention to any complaints that we receive. Always mention this paper when answering advertisements.

LETTERS.

Either on business or editorial matters, should be addressed simply "The Nor'-West Farmer, Winnipeg," and not to any individual.



RACE TRACK GAMBLING.

The bill that was brought before the Dominion Parliament some time ago by H. H. Miller, M. P., seeking to amend the Criminal Code in such a manner as to prohibit professional race track gambling, has met with considerable opposition in certain quarters and has at least resulted in making clearer the issue between the professional book-makers and race-track operators on the one side and those who are opposed to systematized and protected gambling on the other.

When simmered down, the arguments of those who oppose the bill seem to be about as follows: That the country needs good horses; that the race track is essential to the greatest success in horse breeding; and that gambling is an inherent and necessary attendant of the race track.

With every legitimate attempt to encourage horse raising we have all sympathy, but when—as has been the case—the argument is brought forward that farmers are interested in the protection of race track gambling in order that they may benefit in their breeding operations we feel that every true-hearted farmer will experience a feeling of resentment. Such an argument will be resented not only because of the odium that it would attach, if unchallenged, to horse raising as an industry depending upon an immoral practice of society; but it will also be resented because of its being entirely without foundation. The farmer has no more use for the race track as an essential adjunct to horse raising than he has for the Spanish bull fighting arena as a stimulant to cattle raising. The breeding of professional track horses is not a part of any sensible farmer's business. We should not say that he should not raise light horses—drivers, saddlers etc.—but we do contend that the evolution and the influence of the attenuated race track type have done more to destroy the practical merits of our lighter horses than they have done to increase them.

As we see it, when the various plausibilities of the jockey interests are stripped away, it is simply a question as to whether or not the Parliament of Canada shall revise its statutes so as to prohibit the rapidly growing practice of professional gambling which has been asserting itself within recent years not only in our eastern Canadian cities, but in some of our western ones as well. It is not at all a question of the future of the horse; neither is it in any way a question of the rightness or wrongness of trials of speed with horses; but it is a

question as to whether or not there shall be a prohibition of the devices by which professional book-makers and racing associations each year incite the gambling spirit of foolish people and extract from their pockets revenues that in the aggregate are enormous. When it is stated that the Hamilton Jockey Club, incorporated in 1893, with a paid up capital of only \$4,050, has assets to the value of considerably more than \$200,000, and that "in 1909, during which year the Club held two meets, the Club received from book-makers' fees—part of the toll from the fellows who gambled—\$74,800, besides which they received bar receipts \$3,850," and that "the net profits of the two meets was over \$70,000"—when one learns all this one sees fairly clearly why the opposition to race track gambling should be so strong.

The spirit of Canadian law is now against the gambling evil, but in connection with the race track more specific regulation is needed. It seems that the present law makes it illegal for any book-maker to have a "place" of business on any race-track. The intent evidently is to make race gambling not only generally but specifically illegal. But the wily book-maker is able to evade the law by doing away with the usual stand, thus having no fixed "place." It is unnecessary to point out that a business that takes advantage of such a trifling technicality is a business that is being conducted by those who are opposed to the spirit of law keeping. It is not proposed by Mr. Miller and the other interests behind this bill to interfere with "private betting," but it is intended that open, flagrant gambling on horse-racing, carried on by organized gangs whose life work it is to dupe the public, shall be stopped. And unless professionalism and monied interests are to prevail against the right thinking of the people as a whole, the ban will be put specifically upon book-making and its attendant evils in Canada.

CONTINUE THE DISTRIBUTION.

In a paper read at the recent horticultural convention in Winnipeg, Norman M. Ross, Superintendent of the Forestry Station at Indian Head, pointed out the fact that at the present rate of increase in the demand from farmers, the Dominion Government would soon find it an impossible task to grow such quantities of trees on its grounds at Indian Head as would meet the requirements. To meet the situation, Mr. Ross advised that the farmers be encouraged to grow their own supplies of trees at home, and he gave some very helpful hints as to how this might be undertaken.

With the proposal of Mr. Ross we have very much sympathy. It is true that the man who has a well arranged garden can raise a few thousand trees from seeds and cuttings at a very small expense of time and labor. And such a man may just as well do it as depend upon the government to do so simple a task for him.

But, while admitting all this, we still feel constrained to take the other side of the argument. The distribution of free seedling forest trees has been valuable in the past mainly because people were interested in a scheme that gave them "something for nothing," and also because it relieved them of the initiative and detail work required to produce the trees. It put the trees into their hands after they had reached a stage of development that made them appear to be worth looking after. And so tree belts have been established on hundreds of farms whose owners, if presented with a little bag of seeds and told to sow them in such and such a way, would have forgotten all about them at seeding time, and never generated enough enthusiasm the next year even to make application for another lot of seeds. We know that to say this is not complimentary to farmers; we also know that a great many are not guilty of such indifference and would have tree belts, government or no government; but we do

think that in many hundreds of cases where tree growing had not already been demonstrated in the district, this represents the facts of the case.

There are still hundreds of new districts opening up in the West where the advantage of trees about the farmstead is just as much undemonstrated as it was in the country generally when the scheme of supplying free trees was first taken up by the government.

For the benefit of these especially, the offer of free trees should be kept open. And if it is to be made, it should be made to all. The government need not be afraid of the expense of adding a few acres to its grounds. It could even open up another nursery station or two. With all the machinery for doing the work cheaply, the government can produce the common deciduous trees at a cost of a very few cents per hundred, much less, indeed, than the expense on the average farm where dogs, poultry, cows and garden gates have to be taken into account. It is much cheaper to grow a million trees in one place than to raise one thousand plots of a thousand trees each.

If the government is going to limit its work, we should like to see it begin by defining clearly just what lines of nursery stock it will grow and supply, and what it will not. So far it has not done so. Our nurseries, on this account, are placed in the unfortunate position of not knowing just what to grow and what to leave alone. For certain lines of evergreens, for instance, there is yet bound to be a large demand. But few men would have the hardihood to undertake years of careful work with large seed beds and plots of slow growing conifers with the chance that just when the stock was ready for sale the government would offer the same tree free of charge. Let the government make a statement of just what it will and what it will not supply free of cost, and then enlarge its plans so as to supply all who ask for what it has to give away.

THE STEEL AND IRON BOUNTIES.

The announcement made by the Finance Minister some two weeks ago in the House of Commons that it was not the intention of the government to grant any extension to the iron and steel bounties, now being paid out of the Federal treasury in aid of those industries, will be greeted with general approval by our readers, especially by those who carefully read in our last issue the report of what Mr. Drury said on this matter during his recent visit to Prince Albert. We have before us a statement as to the rate of bounties paid during recent years. These bounties were arranged on a sliding basis and ranged up to \$2.10 per ton for pig iron during 1907 and 1908, coming down to 90 cents in 1910. The bounties on certain wire rods in 1907 ran up as high as \$6.00 per ton, and the bounties generally ran downwards from this point. The provision for bounties expires at the end of 1910 but

the manufacturers hoped for an extension. The position which the government has taken is that the business is now on a paying basis, and the bounties shall be withdrawn. It will be in the interests of farmers to see that the promise is kept.

THE HIGH PRICES OF MEATS.

Along with the economic and industrial development of Canada there has been traceable a general upward trend in prices. This has been true of practically all classes of food stuffs and especially so in the case of meats. It seemed that in 1907 prices had soared to the limit and during the following year there was a decided drop which was quickly recovered in 1909 when, in the case of bacon alone, the average price during that year was 46 per cent. higher than the average price for the decade following 1890. In the matter of meat products, fowls and turkeys took the sharpest turn upwards in 1909. Next in order came hogs and hog products, which were followed by cattle, beef and veal. The price of mutton has been declining since 1906.

The Montreal market is said to be the most representative market for bacon in the Dominion. We find that on that market the average wholesale price of bacon has increased from 10.625 cents per lb. in 1890 to 15.479 cents in 1909. The rate of increase has been fairly uniform throughout this period, although the price fell to 8.979 in 1896 and had risen to 16.229 cents per lb. in 1906. The Toronto market is most representative of dressed beef prices. Figures are available only since 1903, as the wholesale meat trade of Toronto has come into existence only during the past few years, and it is only during the time of its existence that quotations have been available. The average wholesale price for dressed beef in Toronto in 1903 was 6.5 cents per pound. Prices have risen through the years following up to and including 1909 in the following respective order: 6.589 cents in 1904, 6.522 in 1905, 6.77 in 1906, 7.268 in 1907, 7.974 in 1908, and 9.365 cents per pound in 1909. Wholesale prices for prime western cattle off cars at Winnipeg, as nearly accurate as can be obtained, show an average range from 3.75 cents per pound in 1890 to 4.416 cents in 1907, 4.625 cents in 1908, and 4.135 cents in 1909. Prices of butchers' cattle at Toronto show a variation from 4.183 cents per pound in 1890 to 5.644 cents per pound in 1909, the lowest average price for any one year being 3.02 cents in 1896 and the highest last year. Montreal is considered representative of the fowl market of Canada. Prices in this commodity have fluctuated considerably. In 1890 the average wholesale price was 9.5 cents per pound. This had fallen to 5.1 cents in 1901, following which there has been a fairly steady increase until last year the average quoted price was 13.15 cents per pound. On the same market, hams have increased from 11.75 cents in 1890 to 14.583 cents in 1909. In Toronto

Not Sisters

Now and again you see two women passing down the street who look like sisters. You are astonished to learn that they are mother and daughter, and you realize that a woman at forty or forty-five ought to be at her finest and fairest. Why isn't it so?

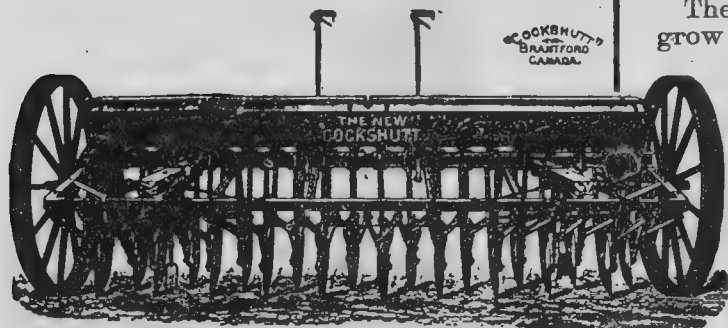
The general health of woman is so intimately associated with the local health of the essentially feminine organs that there can be no red cheeks and round form where there is female weakness.

Women who have suffered from this trouble have found prompt relief and cure in the use of Dr. Pierce's Favorite Prescription. It gives vigor and vitality to the organs of womanhood. It clears the complexion, brightens the eyes and reddens the cheeks.

No alcohol, or habit-forming drugs is contained in "Favorite Prescription." Any sick woman may consult Dr. Pierce by letter, free. Every letter is held as sacredly confidential, and answered in a plain envelope. Address: World's Dispensary Medical Association, Dr. R. V. Pierce, Pres., Buffalo, N. Y.



Cockshutt Disc Drill



Made with Single Disc,
Double Disc or Drag
Shoes (interchangeable)

Increase Your Profits Next Fall BUY THESE TWO MACHINES

THERE are hundreds of farmers in Manitoba, Saskatchewan and Alberta who have bought these two machines and have paid for them out of the increased crops which they have produced in one year. Take the Cockshutt Single Disc Drill—you know there is nothing to equal it for accurate sowing.

The farmer who uses this seeder plants his seed so that the grain will grow up firm and absorb the moisture and nourishment of the soil better—that means bigger crops—plump grain—greater profits.

In material and workmanship there is absolutely nothing to touch the Cockshutt Drill in America.

The frame is built of high carbon steel—very tough and strong—the corners re-inforced by heavy malleable castings and steel corner braces.

The pressure bar castings and self-aligning axle bearings are riveted to the strong I beam which runs the whole width of the machine. The I beam will never permit the Drill to sag in the centre.

Axles are made of cold rolled steel shafting—always uniform in size and set at the correct angle to give the wheels proper pitch and gather which ensures light draft.

Our self-oiling device keeps the bearings in good condition.!

The grain flows down the closed boot right into the bottom of the furrow and is always sown at uniform depth.

The space between grain boots and discs gradually widens from bottom to top—preventing mud and trash stopping the discs from revolving.

No matter how wet or sticky the soil these discs will always revolve and cut. Scrapers are provided so as to keep each side of the discs clean.

The feed on this Cockshutt Disc Drill is a positive force feed of great accuracy and is driven by a short steel chain from the axle.

The seed box is of choice seasoned lumber fitting perfectly at all points.

Box covers are made in two parts and lock automatically.

We use metal bridges between feed cups to prevent grain from clogging, so that the last seed is sown out of the grain box at the same rate per acre as when the box is full.

You can't realize all the advantages and improvements of this Drill until you read explanations in our booklet. Don't fail to write for a copy today.

➔ SEE THE COCKSHUTT DEALER ➔

AFTER BREAKING Or on Dry and Lumpy Land

THIS Cockshutt Pulverizer should always be used after breaking. It rolls down and completely crushes new sod, thereby ensuring the vegetation rotting completely—and much quicker.

Soils that are lumpy and sun-baked should always be run over with the Pulverizer as it spreads and crushes the clods over the surface, thus preserving the moisture in the soil.

It compresses the soil well around the seed, enabling it to germinate and sap the nourishment out of the earth.

It always leaves the surface rough, holds the dust and prevents the soil blowing away.

The Cockshutt Flexible Pulverizer is made of first-class materials and is very strongly built. Removable boxing in each wheel. Removable boxing in centre casting. It is light of draft—devoid of neck weight and turns easily.

Being flexible it readily conforms to the unevenness of the ground, and as the whole machine is not put under lifting strain in passing over obstructions the Cockshutt Pulverizer lasts much longer than other makes. The 16 wheel size is furnished with one pole only or one pole and pulley hitch; the 22 wheel size, with one pole and pulley hitch or two poles and pulley hitch.

If you buy one of these machines NOW you are simply putting your money in the bank—next fall you can draw the money out again with interest—big interest—and you can keep on banking the cost of this Pulverizer for at least twenty years afterwards. Send us a post card—it will pay you to get acquainted with the whole Cockshutt line. Write today—nearest address.

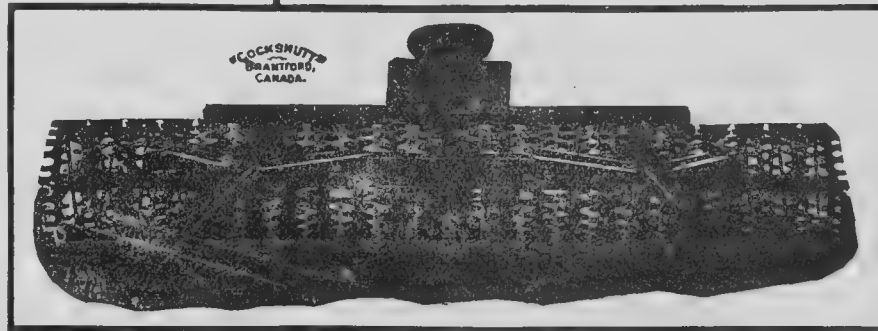
➔ SEE THE COCKSHUTT DEALER ➔

COCKSHUTT PLOW COMPANY **WINNIPEG**
LIMITED

BRANDON REGINA SASKATOON CALGARY EDMONTON

103

Flexible Pulverizer and Compressor



Made With
16 and 22 Wheels

there has been a fairly uniform increase in hog prices from 4.629 cents in 1890 to 7.297 cents per pound in 1909. Dressed hogs have advanced in the Toronto market from 8.06 cents per pound in 1903 to 10.532 cents in 1909. Mutton increased from 7.82 cents in 1903 to 10.808 in 1907, from which high mark it had fallen to 9.827 cents, as the average for last year, this being the only class of meat showing a decline during that time. The quotations for live export ewes at Toronto show declining values since 1906. Turkeys have gone up in Montreal from 9.05 cents per pound wholesale 1900 to 17.55 cents in 1909. Dressed veal has advanced from 7.761 cents per pound in 1903 to 9.39 cents in 1909.

In view of the widespread interest attaching to this condition of affairs, the Department of Labor at Ottawa is conducting an investigation into this matter of increased cost of living. A special report giving the results of the research work that has already been carried out, with respect to wholesale prices during the past twenty years, will soon be issued. Practically every article that enters into the cost of living has been considered. The report will cover some 225 commodities which may be classified under the following sub-divisions: Grains and fodders, animals and meats, dairy produce, fish, other foods, groceries, etc., textiles—woolens, cottons, silks, linens, jutes—hides—leather, boots and shoes—metals and implements, building material, house furnishings, drugs and chemicals, and various miscellaneous articles including furs, liquors and tobacco, rope, soap, etc. It will be a comprehensive and official statement of what conditions are and have been with respect to cost of living and coming out at the present time will aid materially in the discussion of this most important question to every man and woman in Canada. In addition to this the Department of Labor for the past several months have been making arrangements for the publishing monthly of a periodical statistical review of prices. Last year the U.S. Department of Agriculture made some investigations as to the high prices of meats in the States. The work which the Department of Labor has been prosecuting covers every item which enters into the up-keep of the home. While the cost of meats is high, it is also true that other products are also increasing in price. It is stated that in the U.S. during the past 15 years wheat has increased in price 100 per cent., corn 106 per cent., eggs 204 per cent., butter, 158 per cent., potatoes 100 per cent., beans 147 per cent., and meat 80 per cent. With full information available concerning prices in Canada, it will be interesting to find out where the inconsistencies if any, occur.

WHAT WILL THE U. S. TARIFF COMMISSION DO WITH CANADA?

Canada now finds herself receiving deputations from Washington to discuss the tariff situation. It has not been so very many years ago that deputations were sent from this country to Washington for the same purpose and the reception they received was anything but cordial. However, Canada cherishes no spirit of revenge and is willing to discuss matters in the same spirit of friendliness as that voiced by Prof. Emery of the U. S. Commission, which is now in Ottawa, when he said: "We come in a spirit of investigation. It is a pleasure for us to visit you, and we hope as a result of our visit that the good business relations which exist between our country and yours will continue."

The new tariff law of the U. S. comes into force on March 31 and their tariff commission is now engaged in determining to which countries the minimum tariffs will apply. It has not yet been announced that Canada will receive the benefits of the minimum tariff schedule. The present meeting at Ottawa will probably decide this. Canada is not now so much concerned about the U. S. tariff as she was a few

years ago. The States are more anxious this time to secure a Canadian market than is Canada to secure a market in the States and if the latter's tariff commission places Canada in the list of nations operating under the maximum clause of the tariff it would not be a difficult matter for Canada to legislate so as to greatly reduce U. S. exports to this country, although we should not greatly like to see this done. However, there is little doubt but that Canada will come under the operation of the minimum tariff, which will be advantageous to both countries.

The commercial and financial interests of the States are demanding that the maximum tariff should not be levied against Canada. The new maximum tariff in the States is levied against all countries granting better trade terms with other nations than with the U. S. Canada's British preferential and her tariff treaty with France are features which give rise to much talk about the enforcing of the maximum American tariff against the Dominion. It is understood that the preferential treaty with the mother land by Canada will not be considered as a discrimination against the U. S., but just what the commission will make of the Canadian-France treaty is problematical, especially in view of the fact that France and Uncle Sam are at present not on the best of terms commercially. Canada is standing firm in her position and proposes to give the U. S. the same concessions that that country gives Canadians. This maximum tariff means that 25 per cent. additional tariff will be imposed on those nations coming under that clause. If this comes into force against Canada, this country's alternative is the 33½ per cent. surtax which would undoubtedly be used against the States. Canada is the third largest customer of the States and the likelihood of losing our trade will not be over-looked by the Americans in passing a foolish tariff clause against us.

On March 1 the surtax which has been imposed by the Canadian Government against Germany was suspended, according to agreement between the two countries. This is a reciprocal arrangement between the Imperial German Government and the Dominion of Canada and is only provisional, it having been specified in the treaty that "the question of a general convention for the regulation of commercial relations between Germany and Canada shall be deferred for consideration at a time that may be found mutually convenient." The present arrangement, to all intents and purposes, means commercial peace between these two countries. The regular tariffs of each country will apply to the interchange of all articles, the produce or manufacture of either country imported into the other. Among the articles enumerated which Canada may export to Germany under the regular tariff are live stock, meat (excepting bacon), fruits, condensed milk, grain and grain products, fruits, paper and paper materials, and all kinds of grass seeds. Outside of the United States, Germany ranked in third place among the countries receiving Canadian goods last year, the exports from this country to Germany during the nine months ending December, 1909, amounting to \$2,086,477, as against \$2,537,560 to Argentina and \$2,598,603 to Belgium. France came in fourth place with exports from Canada amounting to \$2,049,831 for the same period of time.

Kansas is a great raiser of winter wheat, and therefore it is of interest to note that from several localities in the state have come reports of damage through freezing and heaving of the soil. Prof. Ten Eyck, state agronomist, is advising farmers to roll their crops as soon as the land becomes thawed and dry enough.

We receive all sorts of enquiries at this office and generally try to deal with them all as best we can. But one of our Drinkwater readers has given us a poser. He wishes to know the names and addresses of the seven richest men in the world. We are afraid he will have to apply elsewhere. We have no acquaintance among that class.

Positively Guaranteed TO PERFECTLY SEPARATE OATS FROM WHEAT

This special Separator, Grinder and Fanning Mill (combined) is built particularly for the Canadian North-West. Try it on my binding Guarantee that it will separate Oats from Wheat and Oats from Barley faster and more perfectly than any other machine on earth.

MY experience of over forty years in building special fanning mills for every farming region on earth makes it certain that this Mill No. 2, built for your particular use, will put an end to the worst pest you Western farmers endure—wild and tame oats in wheat and barley. This is the one machine that will get those oats out easily and with positive certainty. Just test a



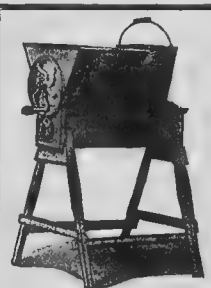
Saves its cost yearly.
Made in two sizes, fitted
with 25 in. and 33 in.
Screens.

CHATHAM Fanning Mill

It will not only take all the oats out of your seed-wheat and the wheat you sell, but it will grade your wheat—separate the shrunken, immature and undersized grains, which you can profitably feed your stock. It will positively add ten cents a bushel to the value of your seed-wheat and five cents a bushel to the price you get for what grain you market.

Works Easiest. Cleans Fastest. Handles a Thousand Bushels a Day

No machine for the purpose runs anywhere near as EASY as the Chatham. None other will clean, grade and separate from 500 to 1,000 bushels of grain a day, doing the work perfectly,—taking out weed seeds and all oats or faulty grain. We absolutely guarantee this mill to do all we claim it will do. Test it for yourself and you will know it outclasses any Fanning Mill on the market.



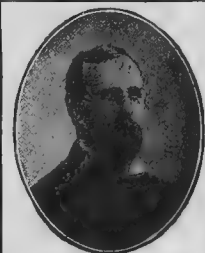
With This CHATHAM Grain Pickler

You get rid of wheat-smut. Made wholly of wood. Can't corrode, clog nor decay. Use either bluestone or formalin solution. New screw-feed easily picks 60 bu. wheat, 80 bu. oats, per hour. Can't bruise the grain. Low-priced; solidly built; guaranteed. Credit, if you wish.

You Can Get One Quick

We carry an ample stock of these special oats-from-wheat machines (which are also fitted with 17 riddles and screens for cleaning and grading ANY grain, big or little) at all our warehouses. We can ship yours on shortest notice. Get our proposition now and think it over. Write us to-day.

The Chatham Fanning Mill was awarded First Prize by the Chicago, Buffalo and St. Louis World's Fairs. Send for valuable Free Book.



MANSON CAMPBELL

says: "I have been building fanning mills since 1867. My mills were in the West before the C.P.R. I am a specialist in this oats - from - wheat proposition, and I KNOW this Chatham mill will do what I say it will in this advertisement."

Sow Clean Grain—Sell Clean Grain—Make War on Weeds

Notice to Dealers—We want dealers to handle our products wherever we are not already represented, and offer exclusive privileges in each place. We are running a large advertising campaign and all orders received by us direct are referred to the dealer from whose territory they come. If you are not selling our products, write us for territory and terms.

Gray-Campbell Ltd. of Moosejaw

Temporary Offices: 400 JESSIE AVENUE, WINNIPEG

Western Canada Sales Agents for The Wm. Gray & Sons Co. Ltd. and The Manson Campbell Co. Ltd. of Chatham, Ontario.

DISTRIBUTING WAREHOUSES AT—
Winnipeg, Brandon, Moosejaw, Saskatoon, Calgary, Vancouver.

What of the Seed Grain?

Are you selecting your seed grain for this year's sowing with any intelligent reason for believing that you have got the best to be had? To grow 10,000 bushels of wheat, harvest and thresh it at haphazard, and then market all except a sufficient quantity for seed, is equivalent to selecting male animals for breeding purposes by opening the corral gate and closing it again after all have passed through except the number required. This latter system would reduce a herd to scrubdom no more rapidly than the system of seed selection that prevails on many farms will send wheat in the same direction.

Selected Seed Catalogue.

The Canadian Seed Growers' Association have issued a price list of highly selected and registered seed produced in 1909 by members of the Association. Copies of this may be secured by writing the secretary, L. H. Newman, Canadian Bldg., Ottawa. The price list gives the name of the grower, locality, kind, price and quantity for sale. We find that in the case of wheat one grower is registered from Alberta, five from Saskatchewan and five from Manitoba. With oats there are two from Alberta, and one each from Saskatchewan and Manitoba. There is also one grower of registered barley listed from Manitoba.

The following is a fairly concise statement of "dry farming" methods: Plow deeply; seed thin; compact the sub-soil; consume two years' moisture; maintain the soil mulch; use clean tillage.

Testing the Vitality of Seeds.

By Frank Sheppard.

It is advisable for the farmer, before going to the trouble and expense of sowing his entire stock of seed with the haphazard chance of its "coming up," to have some idea of the prospects of getting profitable returns from such seed. Even in the experimental farm reports we often see the announcement that certain seeds "did not germinate." This means that the time and labor expended in seeding have been lost, and the failure is generally not known until it is too late to make another sowing with a chance of success.

Though failure of the crop to "come up" may not always be due to lack of vitality of the seed, yet that is so commonly the cause that it behooves the farmer to study the matter carefully and leave as little as possible to chance. As the process of testing is simple and interesting, and calls for no more apparatus than is to be found in every farm house, its adoption will become common and beneficial to that class of farmers that we call intelligent.

Where only one or two kinds of seeds are to be tested, an ordinary plate, two pieces of flannel and a covering of glass are all that is required. The flannel should be boiled to ensure its absolute freedom from germs or fungi, and this should be repeated before each fresh lot of seeds is tested. Dip the cloth in cold water and wring, but not too dry. Place one piece upon the plate and the seeds upon it, covering with the other piece, and then with the glass to prevent the evaporation of the moisture.

The three essentials for germination are: moisture, warmth and oxygen. Moisture is needed to soften the shell and to swell the protoplasm, which is the cellular tissue of life that exists in the seed, but in a dormant condition. The ordinary temperature of a living room is sufficient for the germination of most plants grown here, with the exception of clover and alfalfa, which need a minimum temperature of about 88 degrees. The higher the temperature (within limits), the quicker the germination, and consequently the more vigorous the plants. Chilling or

lowering of the temperature is to be avoided as it may kill the embryo plant before it can thrust out its tiny shoot and thus proclaim its vitality or fertility. The oxygen will provide itself as it does in the ordinary way to the seed when in the ground.

When the seeds sprout they should be picked out and classed as fertile. Some seeds germinate very irregularly, but after a reasonable time those that have not sprouted can be regarded as infertile and the percentage of such will show whether the seeds are worth planting or not. The germination of hard cased seeds should be helped by swelling the seed in hot—not boiling—water. All big seeds are helped by being swollen a little.

When a variety of seeds is to be tested, a somewhat different apparatus is needed. An ordinary dripping or roasting pan will suffice, if thoroughly clean. A piece of flannel should be cut the width of the pan but about twice the length, so that when laid in the pan it can be folded into as many folds or ripples as there are varieties of seeds to test. Wire or sticks should be laid across the pan so as to support the cloth in its folds. It is advisable to fasten the cloth to these so that the folds cannot slip and disturb the seeds. The bottom of the folds should be about half way into the pan so that when the water is poured in they will be clear of it. The ends of the cloth should be free and rest on the bottom of the pan.

The seeds are placed in the folds and cold water is poured into the pan. If rice, water lily or such other weeds that germinate in water are being tested, the one fold in which they lay can be lowered into the water. Sufficient moisture is provided for the other seeds by the capillary action, or soakage, in the cloth, the ends of which are in the water. A glass or other cover should be used to equalize the temperature.

Owing to its greater capacity and adaptability for more varieties, this plan is preferable to the scarcely more simple one with the plate. Moreover, if a glass cover is used, the process of germination can be watched without any disturbance caused by uncovering; but the pan should be placed away from the strong light which is detrimental to the germination of some seeds.

Birds on Growing Crop--Methods of Cultivation.

A subscriber at Nokomis, Sask., writes:—

"1. Last spring, just when the first wheat was coming out of the ground and some was up about an inch or so, swarms of brown birds (about the size of snow birds) appeared on the sown land. I have seen them work along a drill row and bore down and pull up the grain or seize it by the stalk and tug away till the seed came up. I have seen the holes they made every inch or so for a foot to two feet. Other seeds that were too firmly rooted had the stalks broken off. I had a field of 53 acres breaking and summer fallow which came up very patchy, in some places there being patches from 1 foot to 2 feet or so with not a blade, and I estimate that these birds were responsible for 3 or 4 bushels per acre damage to the yield. By the time the stubble wheat was in and sprouting most of the birds had gone, and that crop came up even all over and yielded nearly as well as the summer fallow and breaking. I put down some poisoned grain, but am afraid it did no good, being too late, as it accounted for very few. If you or any reader could recommend an effective way of exterminating these pests or preventing their starting at all, I should be greatly obliged.

2. "Can you also tell me whether shallow breaking that is intended to be backset can be broken too early in the spring—that is, whether it is better to do it the latter part of May and June, or whether breaking done as soon as the frost is out of the ground and backset and worked down in July would give better results? Would it

Record SEED FAIRS

Never before have such clean and high quality samples been seen at Seed Fairs as during the past season, especially in oats, and the record red ribbon must be given to the Garton Breeds, as they have secured all the Champion Sweepstakes Prizes at the Provincial Seed Fairs of Alberta, Saskatchewan and Manitoba, both in 1909 and 1910. This is a record never before held by any seed firm, and proves the superior qualities of Regenerated Seed, produced by actual Scientific Plant Breeding.

WHAT THE JUDGES SAY

Sintaluta, Sask.

After three years' judging at seed fairs in this province, I cannot but remark the great change for the better which Garton's Oats have made in the oat exhibits.—A. J. Quigley.

During the four years I have been judging at seed fairs in Saskatchewan, I have realized the great improvement and cleanliness of the seed oats exhibits since the introduction of the Garton's Abundance Oats.—A. E. Wilson, Indian Head, Saskatchewan.

WHAT THE GROWERS SAY

Dinton, Alta.

I consider Garton's Regenerated Abundance a splendid variety. They yielded 123½ bushels by weight per acre; ordinary oats 109 bushels.—W. S. Cameron.

Lipton, Sask.

Your new breed of oat threshed out 98 bushels, weighing 45 pounds; Banner, 65 bushels, testing 38 pounds.—Chas. G. Hayward.

DOES REGENERATED SEEDS PAY?

CROP MAKES \$59.00 PER ACRE.

Mr. M. E. Vance, Crandall, Man., grew 8 acres Garton's Pedigree Oats and threshed 84 bushels per acre, his Banner oats only yielding 50 per acre. He sold 400 bushels at \$1.00 per bushel, making \$84.00 per acre on his Pedigree seed. His ordinary oats at 35 cents per bushel would make \$17.50 per acre, showing a profit after deducting the cost of Pedigree seed of \$59.50 per acre. Mr. Vance says I could sell you more if I had it but I am keeping enough for my own sowing. They matured one week earlier than Banner. You may send me 35 bushels of your Pedigree Seed Wheat as per enclosed order sheet.

\$274.50 PROFIT ON AN OUTLAY OF \$24.00.

Charles R. Hostetter, Gainsboro, Sask., grew three acres Regenerated Abundance Oats which yielded 102 bushels per acre. His ordinary oats yielded only 30 bushels per acre. His Regenerated Seed weighed 52 pounds per stroked bushel and he sold at \$1.00 per bushel, making \$306.00 on the three acres. Three acres ordinary oats at 35 cents per bushel, would only make \$31.50, showing a net profit of \$247.50 over ordinary oats on 3 acres, at an outlay of \$24.00.

DOES IT OUTYIELD BANNER?

Harrowby, Man.

I am well satisfied with Regenerated Abundance Oats. They threshed 85 bushels per acre. Banner Oats sown on the same field at the same time went 60 bushels per acre.

Dubuc, Sask.

Your Pedigree Oat is a good one. They yielded 75 bushels per acre and ripened 10 days earlier than my own Banner, which yielded 50 bushels.—J. W. Marsden.

Balcarres, Sask.

Garton's Regenerated Abundance Oats threshed 94 bushels per acre and were 10 days earlier than Banner (choice seed) which only yielded 75 bushels to the acre. It is a splendid yielder.—E. D. Sworder.

Weyburn, Sask.

Regenerated Abundance Oats O. K. They yielded 85 bushels per acre, while my own Banner went 60. I could have sold my whole lot at \$2.00 per bushel. Send samples of your barley.—August Peterson.

New and Regenerated Breeds of Red Fyfe Wheat, Barley and Oats are this season offered in our catalog, which also explains how a grain of oats or wheat breeds in the chaff from male and female. This catalog is free on application. We also offer Canadian grown seeds of Stanley and Reg. Red Fyfe Wheat, Regenerated Abundance Oats and Two rowed Barley, all guaranteed absolutely free from Wild Oats or Weed Seeds. Write, stating quantity required, and we will send samples and prices.

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not be better in any case to backset before harvest and work it down as it was plowed?

3. "With regard to summer fallowing, I should like to know what some of the old and successful farmers think about one deep plowing versus two plowings. Would not the one plowing, if done at the right time and cultivated properly, be more conducive to the retention of moisture than two plowings?"

Replies by Mr. Willing.

On account of his knowledge on the subject of birds, we forwarded this letter to T. N. Willing, of the Department of Agriculture for Saskatchewan. His reply follows:—

1. This account of apparent injury of wheat crops by birds is of great interest and worthy of close investigation. The description of the birds is insufficient to indicate with certainty the species implicated, but it is probable that they were longspurs, which arrive in immense flocks about the beginning of May and spread over the prairie and fields before nesting. It is a pity that the inquirer did not examine the contents of the stomachs of some of these birds, as he would likely have found that wireworms were the food gathered from about the roots of the young wheat plants and closer observation would probably have shown that the birds were only pulling affected plants. The wireworm does most damage on crops sown on new land because the eggs are laid by the beetles where there is an abundance of vegetable matter, such as grass and other growths, and when such land is broken and these growths destroyed the wireworms, which take two years to mature, turn their attention to the roots of the crops sown. Grain sown on stubble would not be so subject to injury by the wireworm. If my interpretation of the work of the birds in this case is correct, this farmer was endeavoring to destroy his friends and their refusal to partake of poisoned wheat tends to show that grain was not what they were after.

A parallel case is reported as having occurred recently in Pennsylvania, where a man was tried for shooting robins. He claimed the birds were pulling his cabbage plants. Investigation by an official showed that robins were hopping about this garden, often stopping to pick up something which they scratched out of the ground. They were busy about the cabbage plants which were seen to be wilting and dying. Examination showed that under the surface about the plants wireworms were found by hundreds and the robins were hunting these pests when occasionally pulling and throwing aside an affected plant. Closer observation on the part of farmers and a more frequent reference to their provincial department of agriculture in cases of this kind would be productive of increased knowledge on both sides.

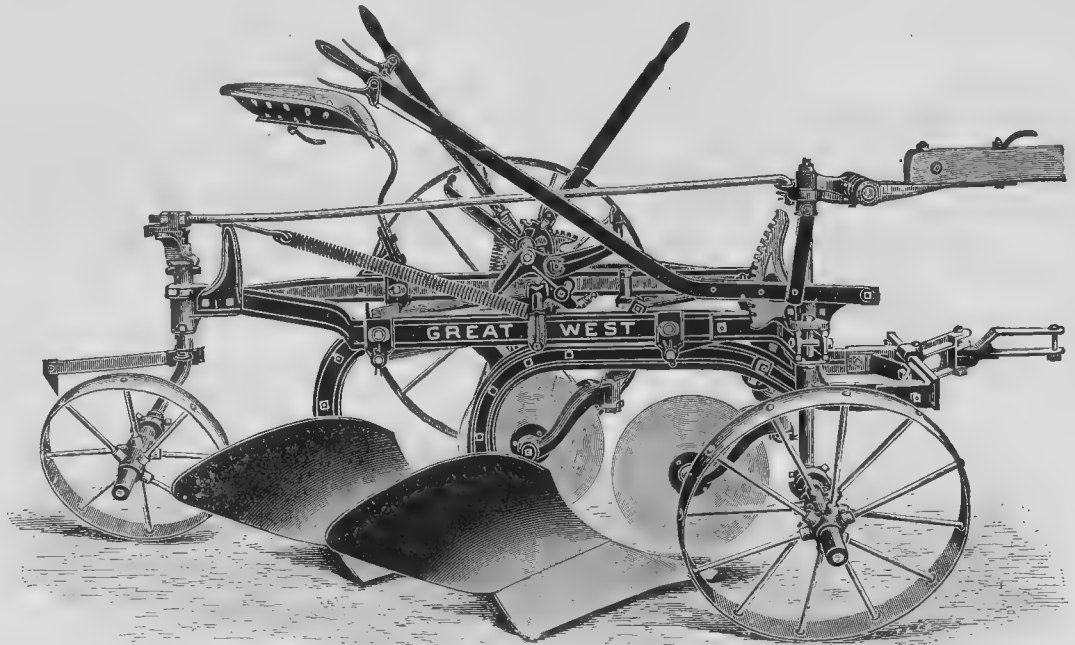
2. In my opinion land broken early in the spring will not be in as good condition for backsetting before harvest as that broken the latter part of May and June, because in the very early breaking the grass and other native growths have a better opportunity of adjusting themselves to the changed conditions before their roots have been at all exhausted by the spring growth.

3. While the opinions of farmers may differ as to the relative value of a single deep plowing for summer fallow and the two plowing system, permit me to point out that the value of a summer fallow depends on how near it comes to accomplishing the object we have in view. If our wish is to retain moisture, we can accomplish this best by plowing deeply before there is much growth and then keeping the ground well harrowed throughout the balance of the season. This method has also the advantage, in an ordinary season, of destroying most of the annual weeds, by giving their seeds an opportunity to germinate before being killed by further harrowing. The wild oat is not effectively subdued by such a summer fallow. A frequent fault is the delaying of our plowing till weeds have seeds nearly or quite ripe and our land

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BECAUSE

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is pumped dry by them. Excessive use of the harrow sometimes keeps the surface stirred to such an extent that seeds have no opportunity to germinate till the following season with our grain.

The two plowings system for summer fallow has its uses and abuses. It may be found that after one deep plowing, although we had intended to complete our work by keeping the weeds in check by the use of the drag

harrow, the weather is too wet and the weeds become too strong to be destroyed that way, so we must plow again, but we should not delay too long with this second plowing and should harrow after it. Many cases have occurred where men have, by one plowing, covered deeply the seeds lying on the surface and have late in the season plowed these seeds up again to grow with the next crop. This is one way to fail in getting rid of the wild

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oats, but if we disk our land in the fall to cover seeds dropped and plow shallow in the spring, when the wild oats and other weeds are six to eight inches high, we may with advantage plow again a little deeper when we have another growth well started. Lands plowed more than once in a season should be well packed if we wish for the best results from a wheat crop. It would be folly to say arbitrarily that either the one plowing or the two plowing system is best, but we should be able to judge for ourselves which will answer our purpose best.

Getting Rid of Wild Oats.

By James Hardwick, Nesbitt, Man.

In reading over the February 5th issue of The Nor'-West Farmer I came across a letter on the wild oat question by T. N. Willing. I see many good points in this letter, but would also like to give your readers my experience for the past six years and the methods which I am employing. A year ago last fall I plowed a field as shallow as possible; just deep enough that the furrow would turn over nicely and cover all the wild oats lying on top of the ground. The field was harrowed down well and the next spring, after wheat seeding, I took four horses and a disc harrow and disced it thoroughly twice, going over the land first the same way as the plowing was done and the second time crosswise. This should be done on a good hot day. The wild oats will have sprouted and this disking will cut them all up. After this go over the field with the ordinary harrow and then sow to barley, the sixty day variety if you can get it. This was the way I treated my field last year and I had a clean crop of barley. Last fall I plowed sixty-five acres, harrowed it well and will disc it well this spring as soon after wheat seeding as possible, when the wild oats will be showing above ground. Will give this field the same treatment as a year ago and seed to sixty day barley. I have my farm fenced into fields so that stock can be turned in on the summer fallow but this does not get rid of the wild oats. They are a fearful pest in southwestern Manitoba and we farmers cannot grow both wheat and wild oats successfully. And if we are not successful with the wheat the wild oats will run us off our farms.

Alfalfa Growing—Seed Potatoes for one Acre.

An Arden, Man., subscriber wants to know if alfalfa clover can be successfully grown in this province and how much seed is required per acre. He also wants to know how many bushels of potatoes would be required to plant one acre.

Alfalfa is being successfully grown in many parts of Manitoba. Many farmers have only small patches and are growing it more as an experiment than anything else, but there are also some that have fields large enough to yield a large amount of pasturage and hay for winter forage. The Brandon Experimental Farm, this past season, stacked around 40 tons of the finest kind of alfalfa hay. We saw them drawing it into the barns a few weeks ago and it was fine; we have never seen better. There have been a number of dairymen in the Winnipeg district that have had marked success with alfalfa. When we say they have had good results we do not mean that they simply were able to get a stand and have the plants live through the winter, but that they had good crops of pasturage and hay in the same sense as other crops are spoken of. Four tons of hay per acre can be counted on. The varieties that do best are the Turkestan and Grimm's with, perhaps, a preference for Grimm's. Angus Mackay, at Indian Head, recommends it very strongly, as does also Mr. Murray at Brandon. From 12 to 15 pounds of seed is required per acre. The plant is a perennial and when a field is once

seeded it should remain down for a number of years. For this reason, and also because the crop is a very valuable one and the seed expensive, the very best kind of seed bed should be prepared. We would prefer a good summer fallow, although Mr. Mackay says it is not necessary. Manure the ground with eight or ten loads of well rotted stable manure per acre, harrow it early in the spring and after grain seeding drill in the alfalfa. The weeds will probably overtake the young plants, but when they get up and shade the alfalfa clip them off. This will give the alfalfa a good start and if the plants are strong they will go ahead from that on and keep ahead of the weeds. Leave a good growth on the ground to catch the winter snow. This protection is necessary. After the first year two good crops of hay may be secured each season.

With reference to the amount of seed potatoes required to plant an acre, it is difficult to say definitely. It depends on the size of the tubers, the size of the cuttings made, and the thickness of planting. Seed required will vary from 8 to 12 bushels per acre. If the seed is cut fine we have known of only four bushels per acre being used. That is about the lowest. On the other hand, with large tubers planted whole 20 bushels per acre have been used. Ordinarily 10 to 12 bushels of seed potatoes are required per acre of ground.

Weeds and their Control.

Synopsis of an Address Given to Institute Gatherings in Southern Alberta by E. H. Malcolm, of Killam, Alta.

In the institute meetings in southwestern Alberta, just closed, Mr. E. H. Malcolm, speaking on the subject of weeds and their control, laid before his audiences very strongly the necessity of the early, earnest attention of the farmers to this question. "It was too bad," the speaker said, "to see such a fine, clean, fertile province so rapidly being overrun with every kind of noxious weed, and he urged the farmers to rouse themselves and take action in their own defence.

It was no use one or two farmers trying to keep their places clean, if all the others in the district did not, nor was it much better if all the farmers in a district did and two or three did not. They must all act in co-operation; it was the only solution of the weed question; and when a neighbor was negligent about such things it should be the business of the better disposed neighbors to see that the fault was pointed out to him and remedied.

Healthy public opinion would do wonders. He deplored the attitude taken so often by farmers in expecting the government to do all that was necessary in persuading careless farmers to keep up their end. The government was doing much, but it was difficult for the government adequately to cover the whole country without the co-operation of the people themselves, who were, after all, the ones most vitally concerned.

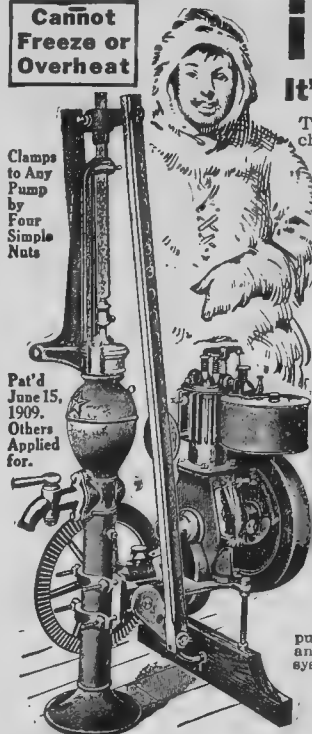
Clean seed first and re-cleaned before being sown, and hand weeded afterwards were only reasonable precautions, in a new country, and could not fail of results if persisted in. He cited a case in point which had come under his own observation, where two men in neighboring sections commenced farming at the same time with similar means at their disposal. In five years one man's farm was as foul as it could well be, while the other one's was clean, the difference between negligence and a little painstaking care.

He heard many complaints about the railroads not destroying the weeds on their property, but in his own district he had found them the easiest people of all to deal with, and they universally cleaned up whenever requested.

The corners and ends of fields should not be missed by the seeder as, if this happened, they were invariably missed by the binder also, and the weeds were left in the field to disseminate them-

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selves still further. Gardens were often kept scrupulously clean during the growing season, but the fall weeds were frequently left to seed. This seed fell on the snow, and with it was often drifted considerable distances.

Summer fallows should be plowed before the middle of June, and every day's plowing should be packed and harrowed before quitting time, and farmers should always remember the three P's—"plow, pack and pulverize." It was a good plan to prepare for the fallow by disking in the fall or early in spring, as this covered weed seeds on the surface and encouraged them to germinate early. To leave the plowing till the weeds were well growing, was little short of criminal, and the man who did it could always expect a dried out soil for the next crop and plenty of weeds among his crop for years after.

Threshers were often blamed, and rightly, too, for carrying weeds to neighboring farms, and yet he thought farmers were greatly to blame for it themselves, as he had never yet asked a thresherman to sweep down his machine without the request being willingly complied with.

At the various places interesting discussions were held in connection with the weeds prevailing in the locality, and various solutions of the problems presented both by the speaker and many of the farmers present, which, if acted upon, cannot fail to help in some measure to the solution of this important and difficult question.

Soil Packers and Demonstration Stations.

Chas De Gallier de Raeder, Invermay, Sask., writes:—"In the Nor'-West Farmer for Jan. 20th, I notice a letter from Mr. Sandstrom, Calmar, Alta., which interests me very much, as I am going to write to you on the same subject. The land around here is covered with scrub poplars and willows; soil is a rich vegetable black loam on clay subsoil. The amount of rain has always been plentiful. Farmers as a rule have only small area under crop, they work up their land well and still the yield is very unsatisfactory. Oats which is the main crop so far, only average from 40 to 50 bushels to the acre. On new breaking we grow tremendous crops of straw with a poor yield of grain and although the straw diminishes after first season the yield improves very little. Excessive looseness of the soil is without doubt the cause. There is no packer in this district yet and several of my neighbors intend to get one this spring but we do not know whether the surface or sub-surface packer would suit our conditions best. We have many sloughs and "pot-holes" and this would have to be considered, as a packer liable to clog up would be next to valueless in most seasons.

"This leads me to the question of experimental farms. New districts have of late been opened up where conditions are entirely different from those where experimental farms are actually located, with the result that thousands of farmers have to do the experimenting themselves at a big loss which would be in a great measure saved by having the experimenting done in one place for the benefit of all. Of course, I am fully aware of the big cost of starting and running an experimental farm, which would make it impossible to have one to fit every district of the West. But would it not be possible to have experimental stations similar to those in operation in the U. S. to advocate the new methods of dry farming. I would like to get some help from fellow farmers on the first question and your opinion about the second."

Ed. Note.—There is little doubt but that a series of demonstration farms are badly needed over the West. At the convention of the Saskatchewan Agricultural Societies held in Regina in January both Pres. Murray of the Saskatchewan University and Hon. Mr. Motherwell, Minister of Agriculture, made statements to the effect that just as soon as possible demonstration farms would be established in

Saskatchewan and we believe plans are being laid to that end. Dean Rutherford for the Agricultural College at Saskatoon is in hearty sympathy with this advanced step. It is patent to all that these experiment stations are needed. The suggestion made at the Regina convention by Jas. Murray, Supt. of the Brandon Experimental Farm, that a plot of some ten or twenty acres on the agricultural societies property might be made into demonstration stations would be following up in a sense the methods adopted in some of the States where the grounds of the County Poor Farm are utilized for this purpose. Whatever plan is adopted, it will only be a matter of a short time until these local stations will become an even greater necessity than at present, and we believe the provincial governments should not be too slow in taking action.

With regard to the soil packers, we should be glad to have our readers enter a good discussion of that particular phase of the question. The packer is not an implement solely adapted to dry farming methods. It is a "good-farming" tillage implement and should be in more general use in all sections. It is our opinion that the sub-surface packer would be best for the type of soil and conditions outlined above. What is needed is to compress the soil more firmly about the seeds and plant roots. The surface pulverizer would pack the surface more, but the other disc type would work deeper and press the soil together in the seed area of the seed bed. Let's hear from any who have had experience.

Sowing a Cleaning Crop.

A Saskatchewan subscriber writes that he has 20 acres of fairly clean oat stubble which he is intending to sow to Mensury barley, as a cleaning crop, instead of fallowing. Twelve acres of this field was plowed late last fall and he wants to know if the remainder should be plowed as early as possible in the spring and sowed after wheat seeding or would it be better to leave until later, cultivating the surface to kill weed growth.

The best treatment for this field will depend largely on the kind of weed seeds in the land. We take it that there are no sow thistles, Canada thistles or quack grass, and by a "fairly clean" field is meant one in which the ordinary wheat field weeds are present to some extent. In this case we should cover the unplowed stubble with the disc and harrow as early as possible and then after seeding, plow and sow to the cleaning crop, either barley or oats. The cleaning crop must be one that may be removed early and if green feed be needed this would be a good field from which to secure it. Remove the crop before any of the weeds have time to ripen their seeds.

Growing Flax with Other Grains.

A. M. Brown, Scott, Sask., writes:—"In answer to W. J. Head's query, in Jan. 20th issue, re growing flax with other grains. From my own experience in growing flax, I would say that little loss from shelling would occur, even if the flax were ripe two weeks ahead of the other crop. More difficulty might be expected in threshing, however. Flax is hard to thresh, and ought not to be bound in bundles, which would be necessary if mixed with oats or barley. Most machines are fitted with flax screens, and chaffers, which are much too fine for oats or barley. If an adjustable screen only were used, in order to get oats or barley through, it would be necessary to have it open enough to allow the unbroken flax balls to pass into the threshed grain instead of being elevated back to the cylinder. Consequently a dirty job at a high price might be expected. Threshers charge from 15c. to 20c. per bushel for flax threshing. Difficulty in getting an even seeding would be most likely to occur, on account of the flax being of a "running" nature, and being heavier than oats or barley would find its way out of the seed box first.

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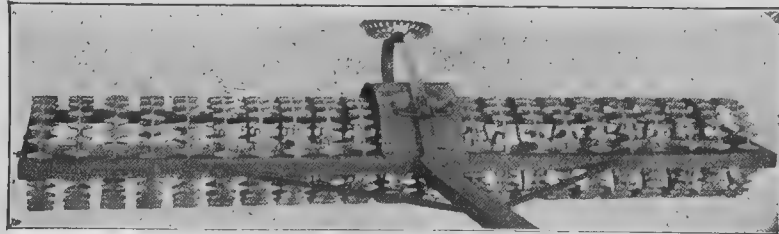
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Getting Title to Lots.

Subscriber, Manitoba.—“A buys lots from B and C. Before A has settled for lots B and C dissolve partnership, B carrying on business. A still keeps on paying for lots and has only two payments to make. A is sent cancellation papers as payments are due but not paid, but A pays within the thirty days as notified. Now A has not received title of said lots. What can he do with such a man? How would he go about getting title of lots or money back if he can do so?”

Answer.—We understand from your question that A has paid the full consideration for these lots and B and C have not given him the title. We would advise A to place the matter in the hands of a solicitor immediately. Possibly B and C will be able to give the title, but A should have a solicitor to make an investigation without delay.

Rental on Shares.

Farmer, Saskatchewan.—“A rents a piece of land from B on third shares, B's share of wheat to be delivered into elevator excepting a certain amount for seed, which was put into his granary. The oats were divided by machine measure at time of threshing, B's share being put into his granary. B comes along the other day and weighs up his share in granary and says it is short. Can B hold A responsible for loss, and if so how much of it? A has witnesses to prove that the right amount was put into granary.”

Answer.—If A put the proper amount of grain into the elevator he has nothing to fear, and B, of course, can collect nothing from him.

School Questions.

Equality, Man.—“We ask to be taken into a school district and are taken in three years after said district is formed. Now the section line road is blocked by a lake and the council do not open the contingent quarter line but open another one which places us at a distance of three miles and a half from school. 1. Can we get a conveyance to carry our children to school? 2. How should we proceed? 3. Does the fact that we were taken into the school district after it was formed make any difference? 4. A farmer rents a farm on shares in a school district in which he is not a rate payer. Can his children be charged a tuition fee for attending school in that district? 5. We secured from a seed firm some rhubarb seed and the season we sowed it some small potatoes came up in the rows, evidently from potato seed having been mixed with the rhubarb seed. Is there any law to prevent us from giving these potatoes a name and selling them as a new variety? They are very early.”

Answer.—1. You are entitled to a conveyance. 2. You should make application to the trustees and if they disregard the application we would advise that you correspond with the Department of Education. 3. No. 4. No. 5. No.

Validity of Order.

Justice, Saskatchewan.—“After my threshing, the thresherman gave an order on me for \$50 to one of his men who was quitting, for wages. The thresherman signed the order, but I did not, as I did not think it necessary. I accepted it verbally, in the presence of

witnesses. The thresherman owed a store account, and before I paid the order the storekeeper garnisheed my threshing account. I paid the order and paid the balance of account into court. Can the storekeeper make me pay him the \$50 I paid on the order, as he claims the garnishee made the order of no account, as I didn't sign it. On the garnishee summons my surname was incorrectly spelled, and the wrong Christian name was given. Would that render it invalid, although I accepted service?”

Answer.—Under these circumstances it would have been wiser for you not to have paid the order but to have paid all the money into court with the statement that there were two claimants for it and asking the court to decide who was entitled to it. We think, however, that you will not actually lose anything and that the court will hold that you were justified in paying the order. You were not wise to take the chance, however. We do not think that your name being incorrectly spelled would have any effect.

Fence—Damage by Smoking.

Farmer, Manitoba.—“1. A fences his farm. B promises to build half the line fence and does not do so. If A does B's share of fence, can A make B pay for it? 2. If a threshing machine is not allowed around his machine, and fire starts from smoking, who is at the loss if any damage is done, the smoker or the threshing machine?”

Answer.—1. A can force B to pay for the fence. 2. The smoker would be liable to the threshing machine, but that would not relieve the threshing machine from liability to a third party.

Damage in Erecting Phone Line.

G. C., Killarney, Man.—“May the government telephone construction gang dig a hole on a farmer's land, 2 or 3 feet over the edge, to put a log in for their telephone pole guy rods to be attached to? They are doing this right along, asking no permission from anyone. I mean just for the main lines only. These guy rods will be a great menace to farmers, as they are all set on the farmer's land. Can this be stopped?”

Answer.—You could not stop the digging of these holes, but compensation should be paid by the Manitoba government 'phones.

Ownership of Island.

Subscriber, Saskatchewan.—“Can an island in the South Saskatchewan river be claimed by a homesteader when his homestead is along the banks of said river and less than 160 acres in extent?”

Answer.—This island can be claimed provided only that it is actually a part of the homesteader's quarter section and that he filed on the whole quarter section. To satisfy himself as to whether or not he can properly claim this island, he should write to the Department of Interior at Ottawa.

Collecting Account.

F. E. C., Antler, Sask.—“I had a man and team on a threshing machine (stooking and threshing) for six days and have received nothing for it. The threshing machine moved his machine away to Sinclair, Manitoba, and left it on the farm where he finished up the season. He has gone east and has paid no attention to letters. I wrote the manufacturers and they replied that he had met his payments with them as well as they had expected, providing that he does not own the outfit entirely. The threshing was done just across the line in Saskatchewan but I live in Manitoba. Several others have been done out of their wages. Those he threshed for have long since settled. The work was done between Sept. 27 and Oct. 4, 1909. He promised to pay me when he left this neighborhood, but always eluded me.”

Answer.—We think that under the circumstances, if this man will not settle with you, the best thing for you to do is to commence an action against him in the county court. This would

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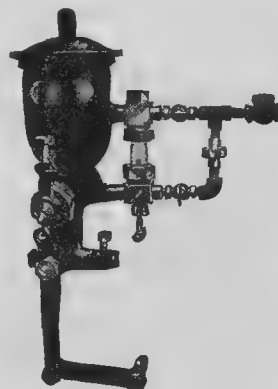
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not be very expensive for you, and we have no doubt that it would force him to settle

Animal at Large.

H. L. M., Settler, Alta.—“Is there any law in Alberta which prohibits letting a six year old stag ox run at large?”

Answer.—There is no general law that applies to all of the province; the law varies in the different districts and municipalities according as to whether or not there is a herd law, etc.

Foreclosing Mortgage—Diverting of Loan.

Subscriber, Sask.—“1. If a man gave a mortgage on his place for a term of five years and was to pay \$100 a year or more, and he missed one or two payments, can the mortgage company take the place at once, or has it to wait until the full time is up? 2. If a man is getting money from a mortgage company and he owed someone else, say \$50 or \$100, can the company use the money to pay this party without the borrower's signing his name to the order?”

Answer.—1. The mortgage company does not need to wait until five years have expired. They cannot, of course, take the land without going through the legal proceedings and serving the mortgagor with notice. 2. The mortgage company, under ordinary circumstances, would technically not have the right to pay any indebtedness of the mortgagor unless it was such an indebtedness as formed a cloud on the title to the property mortgaged. Some of the application forms, however, used by mortgage companies broaden this right and authorize them to pay any indebtedness of the mortgagor which they deem advisable to pay.

Our Eastern Letter.

Shorthorn Breeders Active.—Numerous Auction Sales Announced.—Horsemen Opposed to Miller Bill.—Cattlemen Looking to the Home Trade.—Sheepmen Discuss Wool.—Ontario Milk Commission Makes its Report.

Since the breeders meetings, early last month, there has been nothing of a striking nature in live stock circles in Ontario. Things are not inactive, however, as indicated by the number of sales of pure-bred stock held and to be held. The successful outcome of the big Shorthorn sale of Feb. 4th has set others on the go, and several important auction sales of “reds, whites and roans” are to be held within the next few weeks. Prices will hardly reach the high average of the big sale. It has set the pace, giving encouragement to the smaller breeder and stimulated activities in Shorthorn circles all along the line.

Of course the big sale is not the real reason for the increased activity. It has been the barometer that tells just how things are going. According to its reading Shorthorn weather has improved since a year or two ago. Improvement has come, however, not from the big price resulting at the sale, but from the conditions that have brought about better prices for beef. The scarcity of beef cattle, both in Canada and outside of it, is the thing that has set the ball rolling, and it is likely to keep rolling for sometime yet, unless we misjudge conditions in the beef cattle business as they appear at the present time. The supply of good beef is inadequate to meet the demand. Moreover, the supply of younger animals for the making of beef, let alone good beef, is woefully small, smaller than it has been in Ontario for some time past. The tide has turned, the beef cattle man is coming to his own, and we may look for better things for the breeder of pure-bred beef cattle.

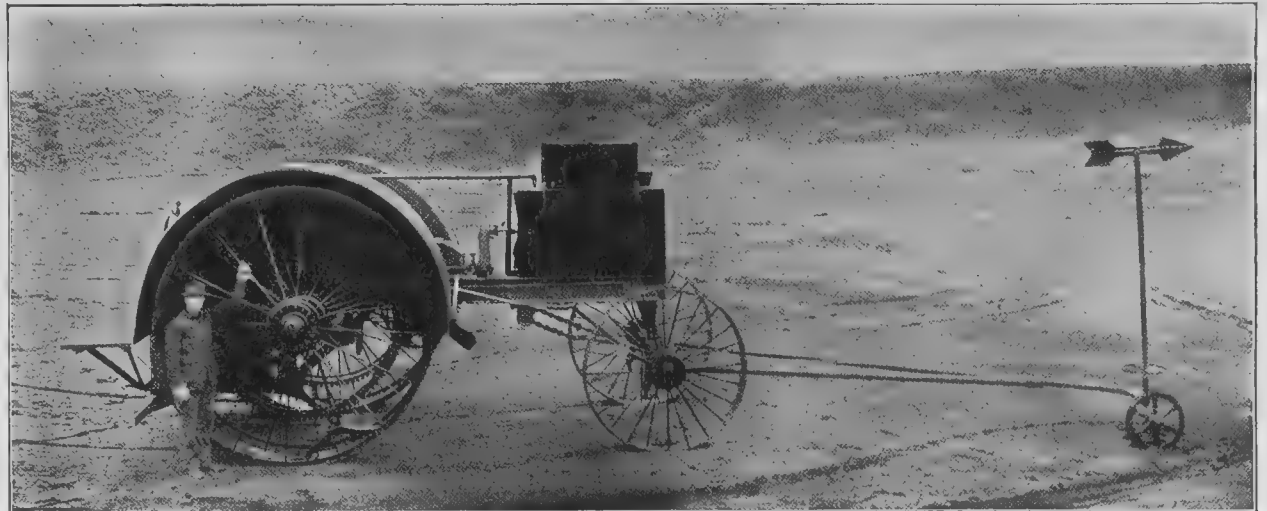
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Then there is the horse business. The big stream of Ontario horses that is moving westward has created some apprehension here as to whether there will be enough left in the province to do the spring seeding. Horses with any

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is for every practical purpose on the farm the
Best All Round Gasoline Engine Made



You must have an engine that is not out of commission a single day in the year. The work of this machine does not begin with plowing and end with threshing. It is perfectly adapted to every purpose in agriculture in which power is required, and in every operation it saves money. It is equally “at home” in grinding feed, sawing wood, road grading, baling hay, breaking, plowing, seeding and in every detail of harvesting, whether as a tractor or stationary power supply.

Lightly constructed—is this self-steering tractor, not weighing over seven tons. Its strength is equal to many engines of twice its weight, so skilfully is it built of the very finest material. It will negotiate sloughs and difficult ground that heavier machines dare not attempt, while its fuel allowance is not spent in moving its own weight.

Parts instantly replaced and repairs quickly effected. As the factories are in Winnipeg, any Western farmer possessing one of this company's engines will be saved the worry and loss of time that follows any breakage occurring or gear giving out in machinery shipped from distant points.

We guarantee all we claim for this engine—its brake horse power; its fuel bill per acre; the number of breaking plows it will pull; the stubble plows it will pull; the size of separators it will steadily and continuously drive; its material, workmanship and structural details in every particular. Write for one of our catalogues, “The Passing of the Horse,” giving full particulars of the engine, but it will pay you to travel a long distance to visit our factory at Elmwood, Winnipeg, where you will be cordially welcomed.

Satisfied customers, in large numbers, have written to express their gratification with the fine performances of our engine in the field, after having put it through every possible trial, and the simplicity and ease with which it is operated. These testimonials and references are freely at your disposal.

Have you seen the **HANNSMAN BINDER HITCH** of which we are the makers? This is one of the greatest of all recent time and labor saving devices. No farm power engine is complete without it and it is indispensable to every harvester who would make the best of his time in the season's rush. Write at once if you cannot visit the factory of the

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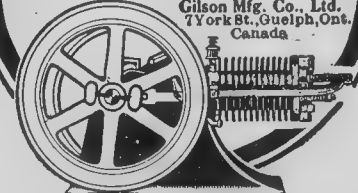
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A perfect engine for pumping, grinding, sawing wood, corn shelling, churning, washing machines and all farming purposes. Larger sizes for feed cutting, threshing, silo filling, and all heavy farm work.

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kind of heavy work in them are eagerly picked up by western buyers. They do not haggle much over prices. If the goods suit, up goes the price to a point where the Ontario farmer can hardly resist. He gets the money, the westerner gets the horse. The one is looking to the big acreage of wheat that will be seeded in the West this spring, and is buying against the need of horse-flesh to put in the crop. The other, seemingly, is not looking beyond present requirements. His horses are idle now. They are consuming valuable feed. He takes chances on the wants of the spring season, which is now not very far off, annexes the cash and parts with his horse. Will he rue his bargain a few weeks hence? Many think he will and that there will be a scarcity of horses on Ontario farms when the busy spring seeding time arrives.

But this is not the worst feature from an Ontario point of view. Tempting offers from the West and elsewhere are inducing farmers to part with their breeding stock. With an eye to the future, the Westerner is buying up good breeding mares, mostly of the draft type, wherever he can get them. What is his gain, however, is the Ontario farmer's loss. The good brood mare, or the filly likely to be valuable for breeding purposes later, should be the last of the horse kind to be sold off the farm. Part with these and breeding operations cease and the demand of the future cannot be met. So short sighted are some farmers that they have let the mares go rather than the geldings because the offers for them were more tempting. But be that as it may, too many good mares and good fillies have been sold out of this province this winter for Ontario's good as a horse-producing centre.

But to hark back to the breeders' meetings. A lot of routine business was done that it will be unnecessary to go into detail about so long after the event. The horse men made a dead set against the Miller bill at Ottawa, and voiced their wishes by passing resolutions asking the government not to pass the bill. It was claimed that if the bill became law a certain class of horse breeding would be injured. The horsemen are not in love with the book-maker. But his business seems to be necessary, they say, to keep up the horse race which is needed to develop the quality of the Thoroughbred horse. That is one point of view, but it is hardly the view of the rank and file of the farmers of this country. If the Miller bill were presented to them in its true light, it is safe to say that 75 per cent. of the farmers would support it. But no direct appeal will be made to them. The horsemen have had their say, or a portion of them at least. What influence it will have with the promoters of the bill is hard to say. Broadly speaking, one would consider legislation curtailing the gambling element at the horse-race a very good thing to have in this country.

Most of the horse associations had a good year, the Clydesdale Association more particularly, and everything is in excellent shape for the work of 1910. Registrations were larger than in 1908, which has swollen the receipts to a pretty good figure. This enabled the Association to offer liberal prizes for Clydesdales at the leading fairs this year.

The cattle men discussed several matters, but none of more importance than developing the home market for pure-bred stock. Considerable discussion took place as to the best methods to adopt in extending the market in the West for pure-bred stock. It was felt that eastern and western breeders should co-operate more than they do in handling the western trade. It was pointed out that with the big inrush of settlers into the West, there should be a market there for the surplus breeding stock produced by both eastern and western breeders. The American settler has more or less established connections with his old home, and will look there when he wants anything in the way of breeding stock. The feeling at the meeting of the Ontario Cattle

Breeders' Association was that the American settler needed special attention, and that some effort should be made to bring to his attention the fact that as good, if not better, stock can be secured in Canada as in the United States and at as low, if not a lower, price.

The wool question was the chief topic discussed by the sheepmen. A year ago a committee was appointed to look into the question of the tariff on wool and to confer with the woollen manufacturers with a view to more co-operation in advancing the interests of wool production in Canada. According to the committee's report, very little progress had been made. Some interesting information, however, was gathered regarding the present tariff on wool coming into Canada. The duty is 3 cents per lb. on wool, but it is not collected. The woollen manufacturer has been asking for more protection, and the government, to appease him a bit, has been allowing him to bring in all wool he imports practically free of duty. The duty is evaded by classing the wool as of a kind that cannot be produced in Canada. But most of it is of the same type as Canadian wool, and should not be allowed in free of duty. Then there is the half manufactured article known as "tops and noils," and used in the manufacture of worsteds. This is allowed in free of duty as raw material. In reality, however, it takes the place of home grown wool, and to that extent injures the market for Canadian wool. The woollen manufacturer is willing to co-operate with the wool grower on the tariff question. He will support a duty of 6 cents a lb. on wool but for that support wants the duty on the manufactured article coming into Canada greatly increased. It is a case of six to one and half a dozen to the other. If the grower gets the duty on wool increased, he will have to pay more for the clothes he wears. From the sentiment expressed at the sheep breeders' meeting, though no definite action was taken, it looks as if in future the sheepmen would go their own gait, independent of the woollen manufacturer. This seems wise. The first thing to be done, if there is any benefit to be had from the present wool tariff, is to have it properly enforced.

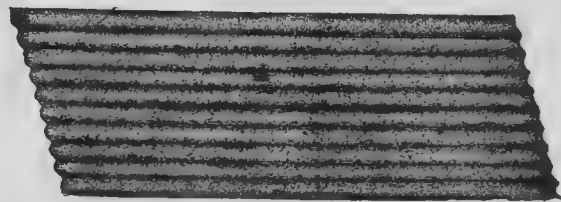
The Ontario Milk Commission presented its report to the Legislature this week. The report covers the condition of milk production and the distribution of the product in the towns and cities in Ontario pretty fully. A lot of information is given about conditions in the big American cities, the whole comprising a volume of considerable size, well printed and well illustrated.

The recommendations of the Commission point to the inefficiency of present laws and asks that they be consolidated and amplified. The commissioners recommend that the general principles governing the production, care and distribution of milk for human consumption should be fixed by the Legislature but that the laws be amplified in the direction of giving municipal authorities larger powers of licensing and supervision; that a general standard of adulteration should be adopted, but that municipalities should be given power to fix a standard of food value, said standard to be not less than three per cent. butter-fat and twelve per cent. solids. More cleanliness is recommended at the producer's end, and firm measures must be taken to combat the ravages of tuberculosis, which constitutes a serious menace both to the bovine and the human species. An active educational campaign is advocated on this question of disease and more careful examination of herds and the elimination of all diseased animals advocated.

—“Easterner.”

J. A. McComb, Gladstone, Man.—“Enclosed please find order for \$1.00 for my renewal to your valuable paper as I count it the best paper that I can get.”

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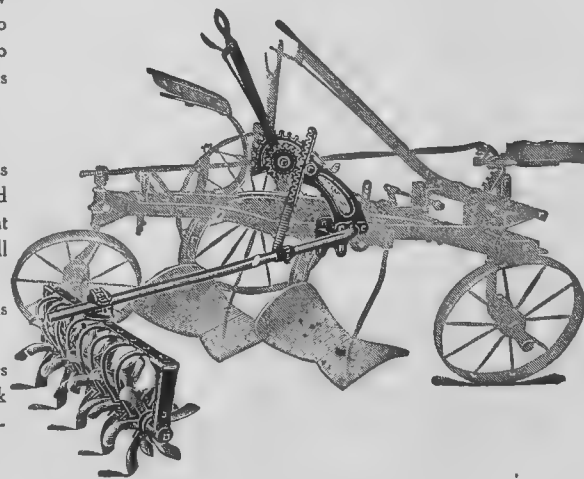
has no troublesome multiplicity of parts and chains to pull, and THE PRICE and terms on which it can be had are within the compass of any homesteader.

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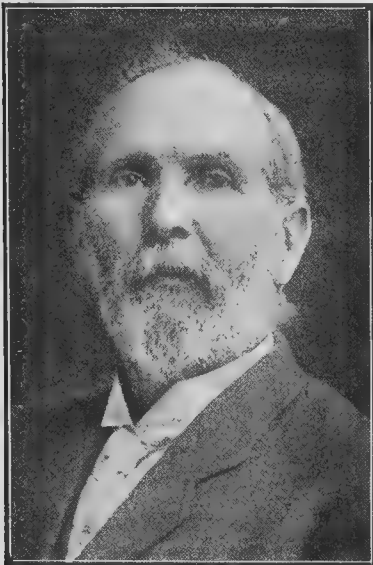


Discussion of live dairy topics invited. The ideas and experiences of dairy farmers and creamery operators and managers especially solicited.

Help the Dairy Association.

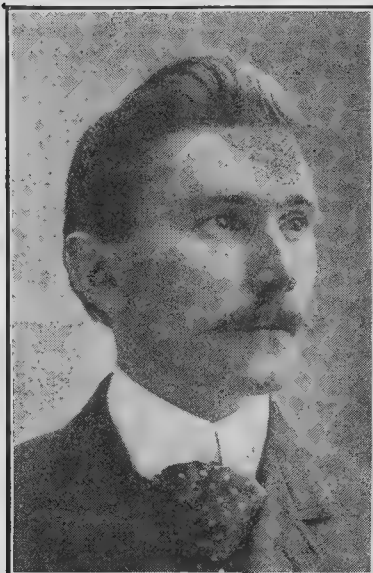
The Manitoba Dairymen's Association is preparing to do some aggressive work this coming year. At their recent annual meeting they elected, we believe, a good live executive, one which will do much to make the Association a real force in the province.

That there is work to do is apparent. Many lines along which improvement is



J. P. O. ALLAIRE, ST. BONIFACE, MAN.
Recently Elected President of the Manitoba Dairymen's Association.

needed were suggested at the convention. Perhaps the one question which brought forth the greatest amount of discussion was that of the need of better transportation facilities. The generally poor opinion of Manitoba butter which prevails in market circles was



L. A. GIBSON, WINNIPEG
Newly Elected Secretary Manitoba Dairymen's Association.

not disputed. Butter makers state that the past season was one of the worst, if not the worst, they have ever experienced on account of the large amount of poor cream received. The discrimination in transportation rates between sweet and sour cream, along with inadequate protection of milk and cream cans at stations, as well as poor train service in many parts, was given the big end of the blame for this poor condition of our butter business.

Better transportation facilities are much needed, and, while the importance of making this subject a live issue among dairymen is not to be minimized, there is also another point not to be lost sight of. That is this: The greatest cause for poor butter and cream undoubtedly originates in improper

care and handling on the farm where it is produced. The best transportation facilities that it may be possible to secure will not counterbalance the effect of dirty stables, careless milking, and improper caring for the milk after it is drawn. We need better transportation facilities for milk and cream, and need them badly, but we need quite as much better methods of production.

These two lines of campaign will be followed up by the Association the coming year. A committee was appointed to further investigate the problems of transportation in all phases. The educational work will have an eye to improving the product where it originates. Among butter makers there is a general opinion that a better product can be made at whole milk factories than with gathered creameries. From necessity, our western creameries will be of the gathered-cream type and there is no inherent reason why as good a product cannot be made from them as from the whole milk creameries. The reason for the poorer quality in the one case is because patrons are so careless about using and caring for separators and about caring for the cream after it is separated. Cream reaches the factory in all conditions, of various consistencies, and of various degrees of ripeness. This is the fault of the patrons and not of the system. As a matter of fact it should be easier to care for cream than milk.

At the dairy meetings which will be held throughout the year we bespeak the best attendance on the part of patrons. Greater knowledge will mean greater individual profits and a better name for Manitoba butter. Join the Association and help boost for better conditions.

Using the Babcock Test.

There seems to be something about the Babcock test that savors of the mystic there, as its accumulation would tedious, or at least a great many people seem to think that milk testing is a process which the ordinary man cannot understand or perform. From the number of letters which we receive regarding instructions on how to use this test there apparently is increasing interest being taken in the West in this matter. Some time ago we asked Prof. Mitchell, of the Manitoba Agricultural College, to give an outline of instructions whereby farmers could be guided in testing their milk on the farm. He has given us the following information, revised from a bulletin prepared some ten years ago by Mr. Mitchell and published by the dairy school at Guelph.

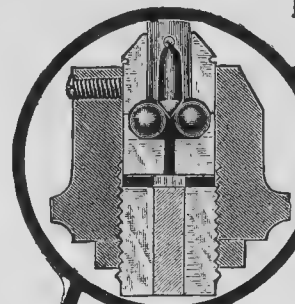
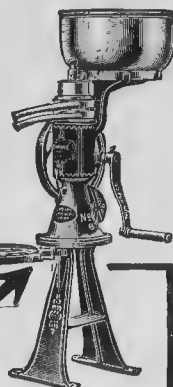
By the term "milk testing" we usually mean the testing of milk for fat. The Babcock tester is the instrument commonly used for this purpose. Every dairy farmer should use the test in weeding out and raising the standard of his herd. If every farmer would only make free use of the test they would be greatly surprised to find how many profitless, or worse than profitless, cows they are keeping. The following is a brief explanation and outline of the Babcock test:

The first requirement is a milk testing machine. A machine consists of milk bottles and the machine proper, which latter is used for separating the fat from the milk by means of centrifugal force. Included with the machine will be also a pipette and an acid measure. The test bottles have long necks on which are stamped a graduated scale to give a reading of the percentage of fat in the sample. The principle employed is this: Commercial sulphuric acid is added to a sample of milk. The acid dissolves the fat and by putting the bottles in the centrifugal machine and whirling at a rapid speed the fat comes to the top of the bottle so that the quantity may be ascertained.

By means of the pipette, 18 grams of milk are taken into the test bottle. To this amount of milk 17.5 c.c. (cubic centimeters — the pipette is graduated into cubic centimeters so that definite quantities can be easily taken) of commercial sulphuric acid are added and thoroughly mix the acid and milk by giving the bottles a gentle rotary motion. Place the bottle, or bottles, in the tester and turn for from four to five minutes at the speed indicated on the machine. Next add hot water at a temperature not lower than 140 deg.

The Secret of the Empire's Fame for Ease of Turning

Frictionless Bowl Spindle Makes Skimming Easy For a Boy or Girl



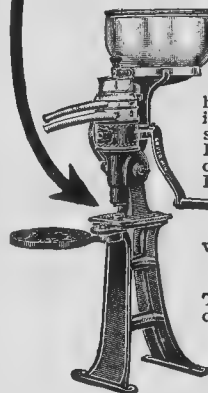
NO OTHER separator can turn easily, compared to an Empire, because no other manufacturer can use the one frictionless cream-separator bearing for the bowl spindle to rest on. That is an Empire patent.

In an Empire the bowl is supported by a single straight spindle, the point of which rests on the curved surface of three balls. (See illustration.) This arrangement not only prevents all friction at the spindle point, but avoids the necessity of any closed bearing around the spindle higher up—as all other separators must have.

This accounts for the Empire being known everywhere as the easy separator. A Frictionless Empire, for example, keeps running half an hour after you stop turning, unless you apply the brake, because the upper bearing is also ball-bearing—as frictionless as the bottom bearing. Other reasons: Light bowl, fewest bearings, simplest construction, best materials and workmanship. No chance of wear or getting out of adjustment—and no work; facts just as true regarding the Empire Disc.

Empires Beat Them All For Ease of Cleaning, Too—and Long Service

Different Styles—All Sizes In Each Style—Offering Widest Choice.



A boy or girl not only can turn an Empire without effort, but clean it, making it absolutely sanitary in a jiffy. That's a vital point. The hard-to-clean separator will rob you every day. Even a speck of cream or impurity that lodges in a crack or crevice will taint the whole of your next skimming, giving you 2nd grade cream or butter—2nd grade price. Empires are, first of all, sanitary separators. No matter which you choose, Frictionless Empire, with cone bowl, or Empire Center-Feed Disc, you are sure of first quality cream, because the few simple, smooth parts are cleaned as easily and thoroughly as saucers.

The years of service Empires have given to hundreds of thousands of cow-owners, with practically no expense for repairs, prove what an Empire will do for you.

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The Empire Book for 1910, is full of money-making facts for every owner of cows—the fairest, most impartial separator book ever published. Shows different styles of machines—take your choice—not one man's hobby. One is sure to suit you in style, size and price. Each backed by the Empire guaranty, as good as a Government Bond. Address

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Factory, Bloomfield, N. J.

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Grand Exhibition of Horses, Cattle, Sheep and Swine. Provincial Stock Judging Competition.

Pure-Bred Cattle Sale

\$5,000.00 Offered in Premiums

New Classes Improved Features

The Provincial Poultry Show will also be held in Regina on the same dates.

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Annual Meeting of Saskatchewan Live Stock Associations

Lectures forenoon and evening on live stock questions by leading agriculturists of Canada.

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Full information upon request.

F. HEDLEY AULD, Sec.-Mgr., Regina, Sask.

Entries close February 25. Make your entries early.

Fahr. to float the fat into the neck of the bottle. Turn the machine again and take the reading before the fat cools. If troubled with burnt readings, add the water twice instead of all at once, filling the bottle just to the neck the first time, then turning the machine about a minute, filling to about the eight per cent. mark the second time, and turning for another minute. The scale on the neck of the ordinary test bottle is graduated to give a reading of the percentage of fat only when eighteen grams are used in the test, i.e., the fat extending over one of the larger divisions weighs one per cent., or the hundredth part of eighteen grams. A few things are essential in order to obtain accurate results. Secure your bottles, tester, etc., from a reliable firm in order to insure accuracy as to graduation. The cost of the tester will vary with the size. A four-bottle machine will cost \$7.00; six-bottle, \$13.50; eight-bottle, \$14.60. This includes test bottles, acid measure, and pipette. The two higher priced machines are enclosed in a metallic case which closes down over them while in operation and serves as a protection in case a bottle should break, when the acid and broken glass would fly in every direction.

It is hardly necessary to state that it is all important to mix the milk well to obtain a representative sample. Mix by pouring from one vessel to another, as violent mixing tends to churn the milk and does not ensure so thorough mixing. Be very careful to measure the exact amount of milk for a test and blow out the pipette well. The amount of acid used must be varied to suit its strength. The right amount is being used when the fat presents a bright golden appearance. Acid that is too strong or too weak should be discarded, as satisfactory results cannot be obtained from its use. Hold the test bottle at a slant when pouring in the milk and acid, to avoid choking the neck of the bottle. Mix the milk and acid thoroughly. The water added to the test bottles should be soft or distilled. If hard water be used add a little sulphuric acid (half an ounce measure, or a little more to a gallon of water) to soften it; this will prevent foam above the fat. Be careful, if adding acid to hot water, to add it gently and so avoid spattering. If the temperature of the room be low, it is necessary to pour hot water into the tester to keep up the temperature. Correct readings can not be taken after the fat has cooled. In such cases, set the bottles in hot water before reading. See that your pipettes and test bottles are clean before using.

Care and attention to details are the great requisites for accurate milk testing and carelessness on the part of the operator has frequently thrown suspicion upon the accuracy of the Babcock test. It is not at all difficult to make a test and with a little practice great accuracy may be secured.

The Relation of Grasses and Clovers to Dairying in Saskatchewan.

Paper Read by A. J. Loveridge, Grenfell, Sask., at Model Farmers' Club Program Given by the Grenfell Agricultural Society at the Convention of Saskatchewan Agricultural Societies, Regina.

A little over a quarter of a century ago, when the writer began pioneer life in the Northwest, on a homestead 40 miles from the nearest railway station, with a yoke of steers and a cow, and after attempting to grow wheat during those dry seasons of the eighties, and meeting with only partial success, and when after contending with blackbirds, gophers, drought, frost and many other difficulties, we succeeded in growing a little wheat, we had to haul it 40 miles, behind a yoke of oxen, a trip which sometimes occupied a week in the winter months—then it was we began to look upon dairying as the most important branch of agriculture, at least for us. Many of us found it to be the only sure way of making a living, and keeping out of debt. It was also a partial solution of our transportation problem, for we could take a few hundred pounds of butter on a buckboard,

and with a pony would market it in one-quarter the time that we could grain. And while conditions have changed with many of us—some have moved nearer to the railways, and many others have had the railroads built to them—still there are many districts in Saskatchewan where dairying is, and rightly should be, the most important branch of agriculture.

There are some districts where only the coarser grains can be ripened, and where the grass grows luxuriantly, there dairying can be carried on profitably. And in those districts where wheat is king, there, in my opinion, dairying should be carried on, and it is there where all the natural grass has been broken up, that the cultivated grasses and clovers are most needed.

To have a profitable dairy (and there are too many of the opposite in the land), after procuring cows of a pronounced dairy type, what is most essential is to procure an abundance of succulent food for all seasons of the year. No doubt you have all noticed the short season for pasturing on the prairie grass. In the olden days of which I have spoken, when we had a wide range for pasture and limitless hay lands, we gave no thought to cultivating grasses or clovers, but we always felt the need of an earlier pasture, especially after a long hard winter, and the advantage of having hay right at home. Hence, of late years, we have given considerable thought and some time in experimenting with grasses and clovers.

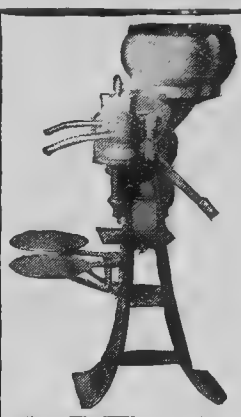
We began with Brome Grass (who has not heard of Brome Grass?) and we found that while it made good growth, excellent pasture, both early and late, it had serious faults. It was difficult to cure for hay, and still more difficult to eradicate when the ground was to be broken up again. After that we tried the Western Rye Grass and have proved that it affords a very good pasture, at least two weeks earlier than the prairie grass. It also makes an excellent hay when cut early. It should be cut as soon as it is in bloom, or else it becomes woody. It is easy to cure for hay, and it also gives a good late pasture in favorable seasons, and is very easily broken up and killed. I have also noticed that it will grow fairly well on alkali soils, where grain has always failed.

I notice that on the Experimental Farms they are having very good success during the past two or three years by sowing red clover with the rye grass seed, six pounds of the former and eight of the latter. It makes better hay, easier to handle, and has produced over two tons per acre.

I believe it best to sow grass and clover seeds without a nurse crop, but I have had good results by mixing one bushel of oats with 15 lbs. of grass seed, and drilling not too deep with a grain drill, that quantity per acre, and cutting the oats as soon as they were well headed out for green feed.

Clover is well known as a valuable food for milch cows, and alfalfa is said to nearly equal bran in value as a food for stock. Clover is now being successfully grown in many parts of the country. I have had common red clover growing luxuriantly in and around my garden for the past twelve years. And two years ago I began an experiment for the Department of Agriculture through our agricultural society, with alfalfa, alsike and red clover. The first summer I kept the weeds down by mowing several times. Last year, I took a first cutting of the alfalfa which was good near to a maple hedge but was poor at the other side. This was probably due to the protection from the snow which had accumulated near the hedge, and also from the extra moisture. The alsike and red clover appeared to be a failure, and I decided to plow it up at the first opportunity, which never came, but that clover picked up and grew luxuriantly and in the fall I cut the whole plot and it yielded at the rate of four good loads per acre. The red clover was especially good. A finer crop I have never seen. Upon examination I found it had become inoculated with bacteria.

Last season I grew a crop of wheat on land which had for several years been seeded down to Brome and Rye Grass. After breaking the sod, we had very dry weather and it did not rot well and I think on that account the crop of wheat was light, but it ripened early and



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Calgary, April 5th to 8th, 1910

Entries for the Horse and Fat Stock Shows close March 15th. Catalogue of Auction Sale of Bulls can be had on application. 121 animals of beef breeds, also Ayrshire bull, to be sold.

E. L. RICHARDSON

Secretary and Managing Director

CALGARY

was of excellent quality and very clean. Before seeding down to grass, this land was very dirty.

And now I must get back to my text and sum up some of the advantages to be derived from the increased quantity of clover in the province of Saskatchewan. In the first place, more cows can be kept on the same land. They can be kept better and easier and hence they will be more profitable. More stock can be raised, and as there will be an increase in the milk flow, they can be raised easier and better. From the by-products of the dairy, more hogs can be raised and cheaper, for it is well known that when shorts and meal are supplemented by a little milk, hogs will thrive much better. And, we know by experience that hogs will pay, if properly handled.

Another advantage would be that farmers and their men would have steady employment during the whole year. There would be a surer and steadier income from the farm than is now the case, and farmers would not need to go in debt to the same extent, nor for so long a period as now.

Another and a great benefit would be derived from the increased quality of richer manure, which if applied to the grass land direct from the stable in winter, would largely increase the yield of grass and hay, and enable still more stock to be raised. Or the manure may be piled during the winter and after the fallow is plowed, hauled out with a manure spreader, and applied as top dressing, at the rate of 6 or 8 loads per acre, and I know from experience that you will not only reap a much better crop, but it will ripen at least a week earlier, and in many cases will grade higher.

By the cultivation of grasses and clovers, weeds will be kept in check, and it is said on good authority, that that bane of many districts, the wild oat, can be rotted out by seeding down for a few years. The fertility of the soil will also be maintained, the country will be more productive, homes will be more permanently established and the country will be more generally prosperous.

A Saskatchewan subscriber asks:—"Will Jerseys throw a calf every year, or only every other year, as I have been informed by some?"

In answer we would say that we have never before heard it suggested that Jerseys would breed only every second year. They are as good breeders as any other breed of cattle.

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If any cream separator manufacturer tries to sell you a disk filled or other common, complicated machine, tell him to wait a bit.

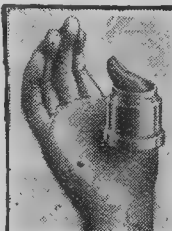
Ask him why you should buy his machine instead of a simple, sanitary Sharples Dairy Tubular, when Tubulars probably replace more common separators every year than any one maker of such machines sells?

Remind him of our guarantee to print at least ten names of farmers who have discarded his class of machine for Tubulars, to every name he can print of farmers who have replaced Tubulars with his machine. Ask him why he has not printed any? Make him show up.

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The only piece inside Sharples Dairy Tubular Bowls.

Holsteins' Progress in Canada.

The report of Secretary Clemons at the annual meeting of the Holstein-Friesian Association of Canada, held in Toronto on Feb. 10, indicates very satisfactory progress. We extract the following:

The registrations have increased 1,291 over last year's remarkable record. The transfer certificates for the year have also greatly overreached last year's record, there having been an increase of 1,603. The applications for membership were so numerous in 1908 that it was thought that the number could not be equalled in 1909. It has been excelled. We now have 171 applications for membership, in addition to the 22 that applied after the close of the fiscal year for 1908, and were duly passed at the last annual meeting. Eighteen of these applications have been received since February 1st. We now have a total membership of 750."

The total number of animals registered during the year was 3,909, and the total number of bulls registered in all the past volumes of Canada is 8,597, and of cows, 12,683. Particular attention is called to the large increase in the official tests for the Record of Merit, as 140 cows have been admitted during the year, an increase of 55 over the previous year. Some of these records have been very creditable ones, and they are all doing much to advertise the breed. Mention might be made of the highest record of the year made by Fancy 3rd, owned by D. C. Flatt & Son., Millgrove, who made 23.32 pounds fat in seven days, thus becoming the champion Canadian-bred cow.

The Holstein Association of Canada is in a strong position financially. It has total assets now of practically \$10,000, composed almost entirely of cash in the bank and municipal bonds. The excellent financial standing of the Association led the members to increase the grants to a number of exhibitions. Some of the grants were doubled. They are: Toronto Industrial, \$200; London, \$100; Ottawa, \$100; Sherbrooke, \$150; New Westminster, \$75; Charlottetown, \$50; St. John (Dominion Fair), \$100; Halifax, \$50; Victoria, \$75; Calgary, \$50; Winnipeg, \$100; Brandon, 25; Edmonton, \$50. Besides this, the following prizes are given for milk tests: Guelph Winter Fair, \$450; Ottawa Winter Fair, \$225; Amherst Winter Fair, \$225; Milk Test Toronto Industrial, \$50; Milk Test Sherbrooke Exhibition, \$25.

Messrs. G. W. Clemons, J. W. Richardson, J. Rettie and H. Bollert were appointed a committee to arrange for the distribution of the foregoing grants. One condition that the committee will exact from the management of each exhibition is that the prizes given by each fair association, for Holsteins, shall be at least as large as those given for any other dairy breed. The grants from the Holstein Association will be given in addition to the grants made by the fair associations. The grants to Toronto, Ottawa, London and to the Guelph Winter Fair were doubled, it being understood that these exhibitions would duplicate this increase. The grants to the various exhibitions for 1910 were increased by \$805.00 over those given during 1909.

Better give the poor cows away than sell the good ones even at a long price.

The Birch Hills, Sask., Creamery Co. enjoys the distinction of having had the largest output of butter in 1909 of any of the Saskatchewan creameries. On the occasion of the annual banquet to the patrons a few weeks ago, about 250 guests were present. The Provincial Superintendent of Dairying, W. A. Wilson, Regina, presided and emphasized the fact that the Government which marketed the product and supervised the working of the creameries were most anxious for the continued co-operation of the farmers. W. H. Munro, Supt. of the Rosthern Experimental Farm, and Wm. Newman, Lorneville, Ont., also gave addresses.



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It is the INSIDE of a Cream Separator that counts

The poor Cream Separator with its slim stand nicely painted is able to stand up because screwed down to the floor, "but the worm gearing" will ask an honest machine, he'll tell you it may skim alright for a time but sooner or later it is bound to give trouble, and that trouble comes at your busiest days when you can least afford to have a break-down and right here is where the value of the strong squarer gear "MAGNET" works come in. It is made right and can be depended upon at all times, you never loose time, temper or profit when you own a "MAGNET." Why? Because the "MAGNET" has squarer gears cut from solid blanks, a skimmer in one piece, easy to clean, a large bowl supported at both ends. (MAGNET patent.) So easy to turn, children operate it. A Perfect Brake. Stops in eight seconds preventing wear.

Look at the "MAGNET" stand so strong and rigid, it holds the parts so firmly that it will skim perfectly sitting on the ground or any floor. Compare it with the flimsy stand and gearing in others.

A blind man may be fooled by talk, but surely anyone who can see and compare the construction would not fail to buy a "MAGNET."

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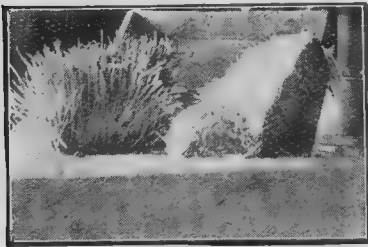
Poultry raisers are invited to contribute their experience to this department.

Patent Poultry Foods.

By Henry H Pearson, Stonewall, Man.

Whenever one person starts in to try to make a living out of anything, another person seems to start in to try to make a living out of him. In no other business is this more evident than in the poultry business. What with the system of telling which hens are the layers, the dozens of systems of managing poultry, the patent foods, tonics and last but not least the 15-cents-a-bushel food, the profits of the poultryman are sadly decreased. While most of the systems are good in their way and worth the price which is put on them, there are some which, in some parts, are common property but in others they are advertised as secrets at from 25 cents to a dollar.

The one with which I want to deal now is the system of having green feed in winter. I have known of this for the last winter or two and have fed it to my Rhode Island Reds, so am able to speak of its high value as a food for poultry. The accompanying photo will show what this food is. The box is shown in which the oats were sprouted and the "sod" is cut in half, one side showing the sprouts, the other the roots.



Sprouted Oats, showing upturned sod on the right. An excellent way to provide winter green feed for poultry when other provision has not been made.

The box is such as one gets when buying fruit, such as plums, in the fall. The sides generally have to be let down a little so as to prevent the oats from falling out. All you have to do is to soak the oats in luke-warm water for 24 hours or so to give them a start. Then empty them into a box with sufficient holes in the bottom so that the water can be drawn off. Place the box in a warm place, watering night and morning until the oats begin to sprout, when they should be smoothed out until they are about two inches in depth. Water as before until they are ready to feed. This is generally in nine or ten days, according to the heat of the room in which the box is kept. They are usually fed when the sprouts are two inches in length and a block of six inches square is sufficient each day for a dozen hens. By this system the oats increase in bulk by fully 50 per cent. and supply the feed that is most valuable to poultry in the winter time.

Probably Catarrhal Roup.

S. H. J., Grassy Lake, Alta.—"I have some turkeys, 1909 birds. Two of them have some disease. Their heads are swollen under the eyes. Their eyes are nearly closed."

Answer by A. W. Foley, Poultry Superintendent for Alberta. — From the description given, I think the trouble is probably catarrhal roup. I would advise isolating the sick birds, keeping them in dry comfortable quarters and allowing them plenty of fresh air. Syringe the mouth and eyes, using a bulb syringe, and placing the nozzle at the back of the throat force the solution out through the nostrils. The solutions most suitable are carbolic acid or creolin in a 2 per cent. solution, or permanganate of potash, one grain to the ounce. The houses and fixtures where these birds have been

kept should be thoroughly disinfected, as the disease is contagious and would soon spread through the whole flock. Equal parts of olive oil and coal oil applied to the inflamed parts has a healing effect.

A Beginner's Experience with Poultry.

By Mrs. Nora Highland, Earl Grey, Sask.

I have been very interested in your articles in the Nor-West Farmer on poultry raising and the winter egg question. I don't profess to know much about poultry, for until about 18 months ago I never took the least interest in them and did not know one breed from another. Life on the prairie is rather monotonous. I had come straight from London, England, and a short time after I came to Canada I suddenly took an idea that I should like to rear some fowls and accordingly started last winter with seven hens and one rooster, a white Leghorn. The hens were mixed and none were pure bred. These seven hens set in due course and hatched out one hundred and nineteen chicks. I must hurry to tell you, or you will think this a tall story, that four of them set twice during the summer. That accounted for so many chicks. I followed a lot of advice given in the Nor-West Farmer about the feeding and rearing of chicks. Sometimes I used my own judgment, but all the time I was very careful of the chicks in feeding and looking after them. For I quite believe they are like little children, they need a good start and a good foundation. I used to feed them about every two hours or so, sometimes grated bread-crumbs, sometimes rolled oats chopped with a knife (until old enough to swallow the oats whole), chopped eggs (with the shell), and I seldom missed a day without giving them a little raw meat, cut very fine, or cooked, whichever I had. Sometimes I gave a little soaked bread and small wheat and always gave them their food in clean vessels, also their water. This feeding I kept up for some weeks, only not feeding them so frequently until they were old enough to join in with the older ones.

My husband made a chicken house. They call it a dug-out. It is dug out of the earth, twelve feet by sixteen. The roof is made of wool with alternate layers of earth and straw; the door and two windows are in the south side. The inside is mud plastered and lime-washed, which makes it nice and light. They lived in this and an old barn until the beginning of the winter, when I had to move them into the dug-out altogether.

We had a lot of roosters but they saved us a good bit in place of meat and they were always in prime condition. So now, after the hawks had some in the summer and the weasels some in winter, I have forty-four pullets and my seven hens that I started with, besides three roosters I have saved for breeding purposes. I forgot to say I never lost any chicks with diarrhoea for as soon as I saw any signs of relaxed bowels I boiled a little rice and gave it to them.

I had no very early broods. My first hen hatched her brood the 22nd of May, the next the 5th of June, and so on. I had just resigned myself to waiting until quite March or April before getting any eggs when to my surprise one of my first pullets and a hen commenced laying in November and then another and another until I now have (writing on the 30th of January) four hens and ten pullets laying. Two pullets that are laying were not hatched out until July and, incredible as it may seem, I have had two Brown Leghorns that were hatched in August start this week, one yesterday and one this afternoon. You may almost doubt this but a lady in Earl Grey, of the highest possible character, whom I had the setting of eggs from would, I am sure, be quite willing to tell you I did not have the eggs from her until the 15th of July. I had not sufficient eggs of my own for setting as the hens were mostly going about with their broods by then. I have not kept any count of the eggs but I know I had seventeen Xmas week and the week before last I had thirty-two, last week

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PEARSON'S ROSE COMB RHODE ISLAND REDS won at Winnipeg, Feb. 1910; 1st cock, 1st hen, 1st and 2nd pullet, 2nd hen. Egg orders booked now from pen of selected layers, \$2 per 15, utility \$1.50, \$7.00 per 100. Cockerels \$2.00 and \$3.00. Henry H. Pearson, Stonewall, Man.

SASKATCHEWAN POULTRY FARM'S BARRED ROCKS are noted for Exhibition and laying qualities. Eggs for hatching securely packed, per setting \$3, best pens 2 for \$5, others \$2. Can't be beat. Gold Coin Seed Potatoes, at \$1.25 bus. are immense. H. H. Willis, Boharm, Sask.

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LEA'S (late Hodgkinson's) Barred Rocks. At the Provincial Show, held at Portage la Prairie, I won 1st on Cockerel and 2nd on Cock, the latter bird won 1st at the Winnipeg Industrial. My young stock are by these two birds. Cockerels for sale, from \$3 to \$10 each; pens of 4 from \$6 to \$20 per pen. Richard Lea, Bridge Creek, Man.

JOHN STRACHAN, Uphill Stock Farm, Pope, Man., breeder of S.L. Wyandottes, S.C. Black Minorcas, S.C. Brown Leghorns, and Pekin Ducks of large size. Stock of all breeds for sale at lowest prices. Can ship G.T.P., C.P.R., or C.N.R.

PETER BUECKERT, Box 20, Winkler, Man. Roso Comb Brown and R. Comb White Leghorns, S. Comb Brown and S. Comb Buff Leghorns. 25 good healthy cockerels for sale. Also eggs in spring from selected birds from \$1.50 up to \$2.00 per setting of 15. Write for information.

"CANADIAN QUALITY" BARRED PLYMOUTH ROCKS. Barred to the skin. Cockerels for sale now. Eggs for hatching from March 1st. Order now. Forrest Grove Poultry Yards, P.O. box 841, Winnipeg.

J. H. CLARKE, Virden, Man., breeder of prize-winning B.P. Rocks. Cockerels, pullets and hens for sale, bred from my Man. Poultry Show prize-winners. Also a few S.C. Brown Leghorn Cockerels. Good quality, prices reasonable.

WHITE PLYMOUTH ROCKS EXCLUSIVELY.—Winning at Winnipeg Poultry Show on six entries, five firsts, one second and all specials offered. Birds and eggs for sale. Correspondence solicited. W. J. Currie, Lauder, Man.

R. L. DAVIES, P.O. Box 272, Winnipeg. A few fine Rose Comb Brown Leghorn pullets for sale. Also first prize pullet, second hen and third cockerel at Winnipeg Show, 1910. Prairie State incubator, 150 egg size, bargain.

BUFF PLYMOUTH ROCKS.—Some fine young birds for sale. Eggs in season. My birds won 11 prizes at Portage, 5 at Brandon, 4 at Winnipeg, July, 1909. Prices reasonable. Rev. T. E. Taylor, Glenboro, Man.

WM. ABBOTT, Holland, Man., breeder and exhibitor of S. C. Black Orpingtons. Have won more prizes than any breeder in Western Canada from Port Arthur to Regina. Stock for sale.

E. H. SHARPE, Union Park Farm, Franklin, Man. breeder of pure Barred Plymouth Rocks exclusively. Choice cocks and Cockerels, \$2.50 each; eggs for hatching, \$1.50 for 13.

FRAME & BLANCHARD, Chamberlain, Sask., breeders of pure S. C. B. Leghorns and Houdans. Cockerels \$1.50 and \$3.00; eggs \$1.50 and \$3.00 per setting.

S. C. BROWN LEGHORN EGGS for hatching. Order early and be sure of getting them. 50 cents per dozen, \$3.50 per 100. Great layers. Alfred Averill, Clanwilliam, Man.

KENNETH MCGREGOR, Glencarmock Poultry Yards, Brandon, Man., breeder of prize-winning White Plymouth Rocks. Eggs for sale. Write for mating list.

WHITE WYANDOTTES ONLY.—I find them the best general purpose fowl for this country so will breed nothing else in future. Choice birds for sale. T. A. McInnis, Regina.

BARRED PLYMOUTH ROCK COCKERELS.—\$1.50 each, Pekin ducks \$2.00 each or three for \$5.00 for quick sale. Ship C.P.R., C.N.R. or G.T.P. K. C. McKenzie, Burnside, Man.

G. H. GRUNDY, Virden, Man., breeder and exhibitor of Barred Plymouth Rocks. A large number of choice Cockerels for sale. Look these over at the coming poultry show.

E. F. FITZPATRICK, Elgin, Man. Best pure bred S. C. Black Minorca, Buff Orpington and Dark Brahma Cockerels for sale. Eggs in season.

MCGILL BROS., breeders of Barred Plymouth Rocks and Toulouse Geese. Stock for sale. Now is the time to improve your flock. Write for prices. McGill Bros., Bunclody, Man.

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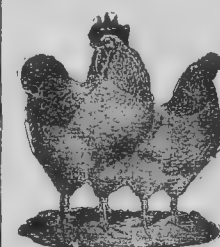


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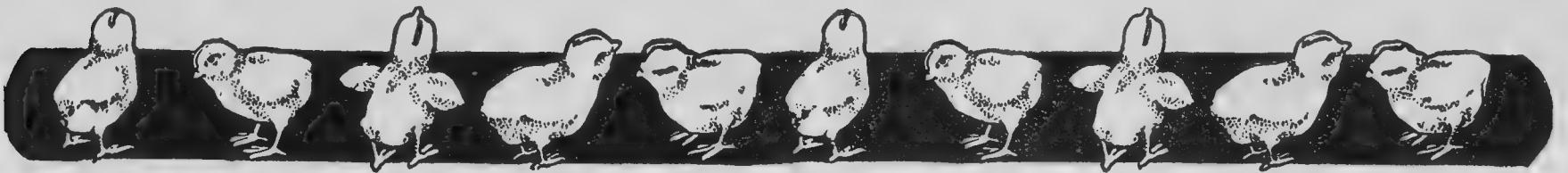
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You Get, Free, The Advice And Aid of Experts

Another very important thing about The Peerless Way is that our interest in your success doesn’t lapse when your Peerless Outfit is shipped. We figure, you see that our reputation is largely bound up with your success—yes, with **your individual success**, once you become a Peerless follower. If one Peerless customer should fail at poultry-raising because we did not do all we should have done to help him, we would feel disgraced. So we try to see to it that no Peerless user fails. Our Board of Experts gives advice, counsel, detailed instructions, to any Peerless user who wants them. And the advice is so plain, so explicit, that a child could not misunderstand it. It tells just how to overcome every difficulty poultry-raising has; and it explains fully the methods which have built up the largest poultry-farm in Canada—the great Poultry Yards of Canada, Limited, at Pembroke, where the Peerless method of hatching was perfected and is exclusively followed.

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Here is another valuable service you get when you follow The Peerless Way:—We guarantee to find a buyer for all the fowl or eggs you want to sell—a buyer who pays spot cash, pays the highest market prices, and charges no commission whatever. Poultry prices, and prices for eggs—as you would know if you lived in a city—have been climbing steadily year after year. They are going to be higher still; they will never be lower, at least; because the demand is growing faster than the supply.

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PEMBROKE **ONTARIO**
CANADA

forty, and I expect to have still more this week.

This is how I feed them: I have an enamelled pot, holding about three gallons. Into this I put all my kitchen scraps, small potatoes, a few turnips, carrots and all vegetable parings and boil these until thoroughly soft. Then I chop them all small with an old baking powder tin, and I add two or three double handfuls of bran, two cupfuls of flour, sometimes two or three handfuls of rolled oats and mix it all together and any pieces of stale bread I may have I soak and add to it until the pot is full and I feed them with this every morning, very warm. Twice the same day, after the warm feed, I give them wheat, and the alternate day, I give them wheat again, sometimes a little rolled oats.

I know you will say the chicken house is too small, but we did not expect to have so many chickens. We kept it nice and clean. The fowls are out of doors whenever fine enough. I am pleased to say we have not had a sick fowl all the winter, and they are all in splendid condition and always finish every scrap of food I give them. It is now the first of February, so I think this is a good test of winter laying. I don't expect them to go off now which is a thing I have kept on expecting all the time. On the contrary, I am expecting from certain unmistakable signs, to still have more laying before many days. I expect my methods are, a lot of them, very faulty to any one thoroughly understanding poultry, but I must plead inexperience, and I'm sure I still have a lot to learn. I think it is capital to be sure of new laid eggs. Apart from the enjoyment of them, they are invaluable in cases of sickness. I remember one January in England in a case of sickness, we were nearly frantic to get new laid eggs. At last we got them at four cents each, and thankful to get them at any price.

I don't take any special credit on myself, for I have had more time than most women (only having one little boy) to look after them, and I think the warm house has a lot to do with it. All meat, bones and small scraps of meat I put in with the vegetables to boil together.

Hatching Chicks with Incubator.

By Robert H. Essex, Buffalo, N.Y.

Farmers are conservative in taking up new ideas; conservative in buying new things. They have to be. Nevertheless, when they see prospective profits oozing through the safety-valve of a new or improved implement, they feel that they must have it, even if they have to give a note for it, or encumber their farm with a new mortgage. That's farm progress, which interpreted signifies prosperity on the farm. No farm can be complete, no farmer can be superlatively prosperous where progress in labor-saving implements is ignored. And this applies as well to incubators as to any other implement.

Where not many years ago nine out of ten farms had never heard of an incubator, to-day the word is passing from farm to farm that the profits are larger, the work less onerous, the hatches more sure, and the hens are taking fewer holidays—laying more eggs; not all on account of incubators, but primarily on account of the incubator, and secondarily on account of the large amount of book knowledge distributed with it. The farmer's wife is doing her share in the profit-making. She always has done it; but now she is gaining recognition as a partner in the business. This is having—it has had—its effect, and the result is, farmers are now posted on poultry profits. They will continue to be posted; and those who have been operating incubators will go back to hen-incubation only when they return to the old custom of treading out the grain with oxen—only when they are prepared to put the cream separator on the shelf.

Poultrymen who are in the business commercially, whose living depends upon the profits, would as soon think of threshing the grain with an old-time flail, as they would of hatching chicks or ducklings with hens or ducks. The thought would be absurd. Without the incubator they would have to go out of business. Before the introduction of incubators



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as "The Dr. Hess Idea," and is endorsed heartily by medical men who know the value of the elements of which Poultry Pan-a-ce-a is composed. It brings young chickens to early maturity; it helps old fowls to fat quick and tender. Pan-a-ce-a also cures Gapes, Cholera, Roup, etc.

1½ lbs. 35c; 5 lbs. 85c; 12 lbs. \$1.75; 25 lb. pail \$3.50. Duty paid.

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Send 2c for Dr. Hess 48-page Poultry Book, free.

YOU Can Make Poultry Culture Pay

It's not so much a question of any one particular breed, as how you handle the breed you have. If you possess a flock of "blooded" birds—well and good. But if yours are only "barnyard" fowls, don't be discouraged—they will pay you handsomely if you keep them healthy, happy, hearty and prolific by giving a regular daily portion (small) of

DR. HESS Poultry PAN-A-CE-A

In the soft feed. The effect of this preparation is almost marvelous. It gives the fowl perfect digestion, and that means the maximum nutrition is extracted from grain and "mash" and sent through the blood to make growth and eggs. Dr. Hess Poultry Pan-a-ce-a is a tonic—not a stimulant, not a condiment, not a food. Its one sole purpose is to make food available; and that it does this is the voluntary testimony of thousands of satisfied users who are coining money in the hen business. This method of feeding is known among poultrymen and is endorsed heartily by medical men who know the value of the elements of which Poultry Pan-a-ce-a is composed. It brings young chickens to early maturity; it helps old fowls to fat quick and tender. Pan-a-ce-a also cures Gapes, Cholera, Roup, etc.

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If you are a farmer and own farm stock, Dr. Hess Stock Food is a necessity in your business. It's a tonic—acting directly on the digestive organs. A small dose in the grain ration, twice a day, maintains a regular, healthy action of all bodily functions in all animals receiving it. It increases appetite and at the same time gives the digestive organs power to carry the increased load. Thus it makes more milk in the cow; more flesh on the steer; and greater spirit in the horse.

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INSTANT LOUSE KILLER KILLS LICE

large commercial poultry plants were an impossibility. Mr. James Rankin gets the credit of putting the first lot of ducklings and broilers on the market in considerable numbers, and making it pay. But James Rankin's only salvation was the invention of an incubator. Without its aid he found he could not make a business of raising poultry for market at a profit; so he made one.

That was many years ago. The incubator of to-day has improved as time has rolled on, and—but no more need be said regarding the future of the incubator (the built-to-hatch incubator) in the poultry business. Hens will continue to be used where only a dozen or two chickens are intended to be kept for home use; but on the farm where chickens can be fed cheaply and are raised by fifties and hundreds, the time-saving incubator, the economic method, will be—is—adopted.

The farmer and his wife sometimes face a disconcerting situation when they have finally decided that they wish to get more of the poultry profits by buying an incubator. The question arises—"Which incubator shall I buy?"

I may not advise them here except generally. There are a number of good incubators on the market; and there are a number of built-to-sell machines that the farmer cannot afford to experiment with; but the present-day farmer has his eye-teeth cut and he knows he cannot get something for nothing. To be successful in raising poultry one must use business-like methods with business-like equipment. In buying an incubator go about it the same way as you would if you were buying another agricultural implement. I might advise again and again, but I cannot give better advice than that. Think it over; and be as particular as you would in trading horses.

Mr. Editor: When you personally know of poultry plants each using from 50 to 100 incubators; of plants hatching 40,000 ducklings in a single season; of fanciers hatching their big show winners in incubators, and raising them in brooders, there's not much left for me to say. It is not evidence of the utility of incubators that is wanted, because anybody can get that in any down-to-date incubator manufacturer's catalogue—evidence on the size of the poultry business; on the profits in the business; on the decadence of "mother" hen (unless the hen that lays the eggs is the mother); and the coming-into-her-own of the hen that never could be made to sit. That is all common knowledge.

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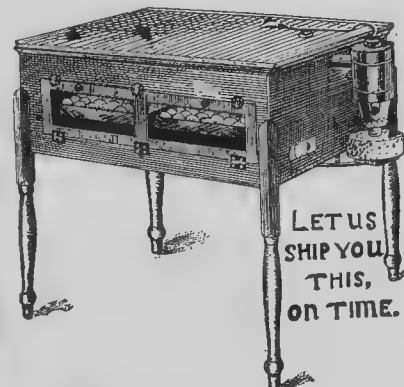
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402 Warwick Apartments, Winnipeg



Breeders and feeders of live stock are invited to contribute their experience. We wish to make this department of the greatest value to its readers, and can do so only with the help of our subscribers.

To Prevent Dampness in Stable.

A subscriber at Cold Springs, Manitoba, writes:

"My stables are frame with only one thickness of siding outside, nothing inside, shingle roof. The horse stable is same as above but boarded on the inside up to top of walls. Both stables are warm, but the walls are very damp. There are good ventilators on the roofs. Would lofting the stables and filling with hay prevent the dampness, or can you suggest any other remedy?"

The trouble here is that the walls and roof too readily permit the escape of heat. They become cold clean through, and the moisture from the animals' breath, coming in contact with them, freezes to the wall. Then when the temperature on the outside rises sufficiently, this frost melts, and the stable is damp as a consequence.

A loftful of hay would help remedy this trouble. Hay is a good insulating material, it would prevent the upward escape of heat, and the floor of the loft would not present so cold a surface to the rising air in the stables. Consequently, less frost would form, and there would be less moisture present.

It is also very probable that the stable walls are not thick enough nor sufficiently air tight. Weatherboarding on the outside and a single lining of lumber on the inside of the studs, especially if the inside boarding be of unmatched lumber, would be scarcely sufficient to prevent this trouble. Matched lumber should be used on the inside, and it would be very much better were building paper used. Indeed, the ideal way would be to have building paper or such other material on both sides of the studs as would make the space between quite air tight. Then there would be very little, if any, trouble with rime on the walls.

Some will object that such tight, warm walls will mean badly ventilated stables. This argument is all wrong. From the standpoint of ventilation, the stable walls cannot be too warm. The ventilation in any stable—or in other words the amount of pure, fresh air admitted—is limited to the amount of heat that one can spare and still keep the animals in comfort. If the spare heat all escapes through an inch wall of matched, frozen over lumber as soon as it strikes it, the stable may be, and likely is, both cold and badly ventilated at the same time. If the heat does not escape thus, a very great deal of pure fresh air can be constantly introduced and a comfortable temperature maintained. And at the same time the walls will be comparatively dry.

How to Prevent Sore Shoulders.

The following hints from Dr. Glover, of the Colorado Agricultural College, are timely:—

Too much care can not be exercised in seeing that the collar is a perfect fit. A collar which is too large is more likely to injure the horse than one that is too small. The collar should be scraped each morning and carefully cleaned before it is again put on the horse. Before the spring work begins, it is well to oil the harness and have it soft and pliable. For the first few days of hard work on soft ground the shoulders of the horse should be bathed in cold water every night after the harness is removed. The horse will be very sore and tired for a few days and should be given every kind of attention. Watch the harness to see that the draft is at right angles with the shoulders. If it is too low, the collar will be constantly "kicking up" at the top and the horse will soon have

BREEDERS' DIRECTORY

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M. C. WEIGHTMAN, Lindsfern Stock Farm, Morden, Man., breeder of Aberdeen-Angus cattle and Yorkshire swine. Young stock of both sexes for sale.

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HEREFORDS—Pioneer Prize Herd of the West. Good for both milk and beef. **SHETLAND PONIES**, pony vehicles, harness, saddles. J. E. Marples, Poplar Park Farm, Hartney, Man.

F. MURDOCK, Spring Bank farm, Greenway, Man., breeder of Shorthorn cattle, Shropshire Sheep, Poland China Hogs, and Scotch collie Dogs.

P. McGRATH, Oak Bluff, Man., breeder and importer of Poland China hogs. Write your wants.

COLIN D. REX, Parlington Farm, Elkhorn, Man., breeder of Shorthorns. Herd headed by imported Baron's Pride =28855=.

CLYDESDALES, imported and home bred. Traynor Brothers, Meadow Lawn Farm, Condie, Sask.

JOHN TURNER, "Bonnie Brae Stock Farm," breeder of Polled Angus Cattle. Farm one mile west of station, Carroll, Man.

W. HARDY, Fairview Farm, Roland, Man., breeder of registered Clydesdales, Ayrshires and Yorkshires. Stock for sale.

W. H. ENGLISH, Harding, Man., breeder of Shorthorn cattle, Yorkshire pigs, Rocks and Buff Orpingtons.

D. SMITH, Gladstone, Man., breeder of Yorkshire Swine, Jersey and Shorthorn cattle, Shire horses and Pekin Ducks.

BRIER ROSE STOCK FARM, pure bred Berkshires, Barred Plymouth Rocks, Bronze Turkeys. Wm. Curry, Qu'Appelle, Sask.

H. F. CALDWELL, Roslyn Stock Farm, Dauphin, Man., importer and breeder of Shorthorns. Stock for sale at all times.

D. ALLISON, Stronsa Stock Farm, Roland, Man., breeder of Shorthorns and Berkshires. Young stock for sale.

JOS. COCKRIELL, Box 13, Holmfild, Man., breeder of high-grade Oxford Down Sheep Ram lambs for sale. Twelve firsts Killarney 1908.

R. C. HENDERS, Morningside Farm, Culross, Man., breeder of Shorthorns and Berkshires. Breeding stock for sale.

JAMES A. COLVIN, Willow Dell Farm, Sedge-wick, Alta., breeder of Shorthorns and Berkshires.

OSWALD PALMER, Lacombe, Alta., breeder of Hereford cattle. Some choice animals, both sexes, young and old, for sale.

HOLSTEINS—Choice Bull Calves for sale. J. J. Tannahill, Whites, Que.

J. MORISON BRUCE, Tighnduin Stock Farm, Lashburn, Sask., breeder of Clydesdales and Milking Shorthorns.

JAMES D. BROOKS, Plum Coulee, Man., breeder of Shorthorns and Poland Chinas.

GEO. GORDON, Muirton Farm, Oak Lake, breeder of Shorthorns. Choice young stock.

T. D. TAYLOR, Mount Pleasant Farm, Minnedosa, Man., Shorthorns and Berkshires.

W. N. CROWELL, Napinka, Man., breeder of Shorthorns. Berkshires. Stock for Sale.

GUS. WIGHT, Evergreen Farm, Napinka, Man., breeder of Clydesdales and Shorthorns.

JOHN SCHARFF, Hartney, Man., breeder of Clydesdale Horses.

PEKISKO HEREFORDS, at the ranch of S. M. Mace, Pekisko, Alta.

ADAMSON BROS., Gladstone, Man., breeders of Shorthorns. Young bulls for sale.

JOHN MATTHEWSON, Virden, Man., breeder of pure bred English Berkshires.

BROWNE BROS., Ellisboro, Sask., breeders of Aberdeen Angus Cattle. Stock for sale.

W. L. McNAIR, Progress Point Farm, Keyes, Man. Shorthorn Cattle. Young stock for sale.

E. McIVOR, Routledge, Manitoba. Breeder of Shorthorn Cattle.

JOHN HAW, Victoria Farm, Virden, Manitoba. Breeder of Clydesdale Horses and Berkshire Swine.

RICHARD LEA, Bridge Creek, Man. Short-horns and Berkshires. Stock for sale.

FRANK MILBURN, Virden, Man., breeder of large English Berkshires.

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J. M. DOUGLAS & SON, Tantallon, Sask. Breeders of Clydesdales and Shorthorns.

R. G. SKELTON, Elva, Man., breeder of Shorthorn Cattle.

T. E. WALLACE, Portage la Prairie, Man. Scotch Shorthorns. Stock for sale.

J. A. KILLOUGH, Riverside Farm, Pense, Sask., breeder of Yorkshire, Berkshire, and Tamworth swine. 30 pure-bred Berkshire, Yorkshire and Tamworth boars fit for service, for sale.

THOS. SANDERSON, Evergreen Farm, Hol-land, Man., Breeder of Shorthorns, Shropshire Sheep, Yorkshire Pigs and S.C. Brown Leg-horns. Write for prices.

WALTER JAMES & SONS, Rosser, Man., Shorthorn bulls all sold excepting a few good bull calves. Four good Yorkshire and two Berkshire hogs yet for sale at \$18.00 each. These are fit for service now.

WM. GRAYSTON, Mount Pleasant, Newdale P.O., Man., breeder of Shorthorn cattle. Young stock for sale. Write.

GEO. ALLISON, Burnbank Stock Farm, Burnbank, Man., breeder of Shorthorns and Leicesters. Farm 7 miles from Elkhorn.

JOHN STRACHAN, Up Hill Stock Farm, Pope, Man., breeder of Shorthorn Cattle and Yorkshire Swine. Young stock for sale.

ABERDEEN ANGUS CATTLE at Bellview Farm J. S. McKelvie, Prop., Brandon, Man. Bulls for sale.

JOHN TRAQUAIR, Welwyn, Sask., Polled Angus cattle. Stock always for sale. Write me before buying.

I. A. FRASER, Maple Grove Farm, Portage la Prairie, Man., breeder of Shorthorn Cattle and Berkshire Swine. Young stock for sale.

JAMES DUTHIE, Melgund Stock Farm, Hartney, Man., breeder of Shorthorns and Berkshires. Stock for sale.

A. D. McDONALD, Sunnyside Farm, Napinka, Man., Shorthorns, Berkshires, Yorkshires Young hogs for sale.

WILD ROSE STOCK FARM—Souris, Man. Breeder of Clydesdale Horses. One young stallion rising three for sale, T. H. Perdue.

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GEO. RICHARDSON, Nutana, Sask, breeder of Shorthorns. Bulls for sale.

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G. W. ORSER, Wauchope, Sask. Choice Short horns of both sexes for sale.

THOS. McCARTNEY, Longburn, Man., breeder of Ayrshires. Write your wants.

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TAMWORTH HOGS AND SHORTHORN CATTLE at Neepawa Stock Farm, A. W. Caswell, Prop., Neepawa, Man. Seven bulls, several heifers, young boars and sows for sale. Farm adjoining the town of Neepawa. Phone No. 95. Can ship via C.N.R. or C.P.R.

MORTSON BROS., Fairlight, Sask., have Yorkshire hogs for sale, young and old, both sexes. Showed grand champion Brandon Fair. Prices according to quality of animal selected.

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W. SWITZER, Box 1076, Brandon, Man., Breeder of Improved Yorkshires. Young stock of both sexes for sale. Prices according to age.

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DUNFIELD BROS., Dauphin, Man., Ayrshires White Wyandottes and Pekin Ducks. Young stock for sale.

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I am offering some choice young Bulls and Heifers for sale. Prospective buyers will be met at train and returned.

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BAKER'S JACK FARM, Lawrence, Ind.



Yak at Brandon Experimental Farm. (See article accompanying.)

a sore neck. If the draft is too high, the collar will not rest securely on the lower part of the shoulder, where the horse is best prepared to throw his weight. If there are any calloused lumps on the horse's shoulders or back, they should be carefully removed before the busy season. If the collar is put on over one of these "sit fasts," it will have the same result as a man trying to walk with a button in his shoe or a bunion on his foot.

This article is not for the purpose of suggesting treatment for bruised shoulders and sore neck, but simply as a reminder that as spring approaches an ounce of prevention (by having the horse and the harness in good condition before beginning the spring work) is often worth pounds of cure later on when the horse is disabled and you are deprived of his services for weeks, right in the busy season.

Yak at Brandon Experimental Farm.

The accompanying illustration shows a bunch of five yak now in pasture at the Brandon Experimental Farm. There are five cows and one bull in the lot. They were secured for the farm through the efforts of Thompson Seton, the well known naturalist. For a number of years the Duke of Bedford in England has made a hobby of collecting various kinds of wild animals and has a large number of yak on his grounds.

Yak are a species of ox and scientifically known as *bos grunniens*. They are the native wild ox of the high mountainous regions of Tibet. They exist, however, in two forms, the wild and the domesticated. Both are physically similar, the wild yak being black in color while the domesticated ones are both black and white. Being native to such rugged conditions they are necessarily very hardy animals, somewhat smaller than the common ox but resembling it very much in general appearance. The Tibetans use the domesticated yak for beasts of burden—for carrying loads—but scarcely not at all for draught purposes. They give a very rich milk which makes a fine quality of cheese and butter, and their flesh is also prized for food.

Mr. Thompson Seton has an idea that these animals may prove valuable in some of our northern latitudes where cold and other conditions make

it difficult for cattle to thrive. With this in view, he obtained permission from the Department of Agriculture to have these specimens sent to the Brandon Farm. Two of the females appear to be in calf.

It is a question as to whether they will ever be of any economic importance to this country. They are much less of the meat producing type than our beef breeds, but more so than the buffalo. They are quite domesticated, as much so as ordinary cattle.

Localizing Horse Breeding.

By "Interested Farmer," Alberta.

In your issue of January 20th you state that assurances have reached you that demands for different classes of horses in this country are of interest to your readers. This interest, I take it, in great measure resolves itself into this: How can I place the horse I have raised so as to get the market price for him, whatever his class?

The city prices quoted are good. Does the farmer get those prices when he comes to selling horses, whatever their class?

The reply that "they are not the right kind" is not sufficient answer to the question. Express horses are quoted at \$225 to \$300 each; delivery horses at \$200 to \$250 each. In the Veterinary General's report on the Western market for 1909 we read: "There has been a good demand for carriage horses and one shipper from Iowa brought in two carloads which sold at an average of about \$600."

Importing! Importing! For how many years have Hackney stallions been imported to the Dominion? They, if the right kind, are the sheet anchor for producing harness horses. Have those stallions ever been given a fair trial and their progeny marketed in a way profitable to the farmer, or are the "never venture" men right who warn farmers against ever breeding to anything but a draft stallion with hirsute adornments on his legs?

How often we hear about a horse that if he were here, and if he were there, and if he were in some other place, what he would be worth. I imagine one place where he ought to be, and that is where there are a reasonable number of his own class. Many horses, good of their class, must be sold low from not being put on the

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Mares, Shires and standard breeds of the very best breeding in the country. We can show you 20 Stallions and 15 Mares as good as those of any one breeder in the United States, or Canada. We invite you to come and inspect our horses and we will prove it to you, that they have the size, action, style, bone, quality and breeding unsurpassed anywhere in the country. Our horses are raised in North Dakota and are better horses for the north west. Our coming three-year-old Stallions came out of the pasture in November. They are raised as they should be and will

prove money makers to the buyer from the start, and you need not experiment with them. Our prices are as low as the lowest considering the size and the quality that you are getting.

E. O. & O. O. ELLISON & SONS, Lamoure, North Dakota

GLENCARNOCK ABERDEEN ANGUS CATTLE

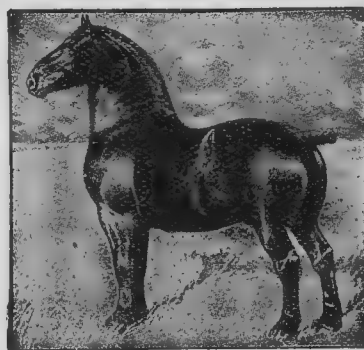


We have ten choice young Bulls of 1909, every one a topper and splendid big fellows for their age, of the low down bulky sort, that sire market topping steers. We also have a few two-year-old Heifers that are good enough to start a foundation herd of show cattle, all are bred to our champion bull, Golden Gleam or Black Bird Brilliant, to drop their first calves in August or September next. Now is the time to make a start with a pure-bred herd of the right sort.

Glencarnock Stock Farm, Brandon, Man.

ROBERT BROWN, Herdsman.

JAS. D. MCGREGOR, Prop.



MAPLE VIEW FARM PERCHERON AND HACKNEY STALLIONS AND MARES

My new importation arrived on Dec. 25th, in good condition. They are the best which I have ever been able to buy. All of good colors, black and grey, with plenty of bone and lots of quality. It will be to the interest of every intending purchaser to write me or come and see my horses before buying. I can save you money, as I buy my own horses and sell them without any salesman, giving the purchaser the benefit. All my horses are sold under a breeding guarantee. My 35 years' experience in the stallion business enables me to select breeding horses, as my reputation has shown, for I have only owned two non-breeders in 35 years. Correspondence solicited. Visitors welcome. Maple View Farm is 1/2-mile from station.

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Moosomin, Sask.

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Champions of the Show Rings of
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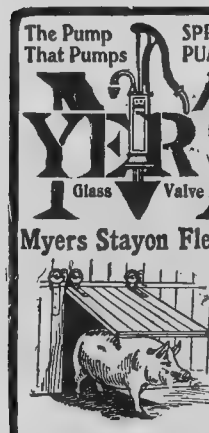
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market right. I am not referring to carload shipments from ranches, but the horses raised on a farm. High prices quoted on classes: "Odd horses of the classes quoted hanging around, perhaps begging to be bought. Is not this what many of your readers want light on?"

To me it appears that there is something wrong with our local system, or rather our no-local system, of raising horses. In Great Britain if a man wants to buy different breeds of horses, and their grades, he knows to what district to go to get just what he wants, and the same rule applies to the different pony breeds. If a man wanted one, or one hundred, Exmoor ponies and did not know just where to get what he wanted, it would be nuisance enough in a place the size of the British Isles. Yet here we have a heterogeneous collection of grades scattered over thousands of miles. This, I think, helps to give unsatisfactory results from many of the clean-legged stallions imported, and helps to make "the difficult horse to sell."

I only offer this as "a growl." Perhaps there is no remedy, but it seems a pity that "two carloads of carriage horses" could not have been filled by Canadian farmers of some particular district instead of coming from Iowa.

Feeding for Beef.

Each winter for a few years past Messrs. Batho Bros., of Minnedosa, have fattened a number of steers out of doors in much the same way as has been done at the Experimental Farm at Brandon. The steers are fed in a wooded ravine, sheltered from the storms. At a recent farmers' institute meeting in the district, Mr. Herbert Batho read a paper giving some of his experience and ideas on this question. We summarize some of these as follows:

Will it Pay?

If we cannot figure out a profit in cattle feeding, we should be foolish to follow this branch of farming, as grain growing has paid so well of late years. But we must not lose sight of the fact that mixed farming is inevitable; its coming is only a question of time. The wise man will be ahead of the necessity. He will take to cattle raising before his land is exhausted and over-run with weeds, or, as I once heard a man say, he "believed in feeding his land before it was hungry and cleaning it before it was dirty."

Then perhaps the question "will it pay?" should be changed to "how can it be made to pay?" and this is united to my other points, what and how to feed, for the methods and material of feeding will settle the whole question of profit and loss. Many a man has fed cattle so extravagantly as to material and labor that at the end of the season his accounts have shown a debit balance and he has condemned the business as unprofitable when the fault was in his own methods.

I am prepared to prove that there is profit in feeding beef cattle, and, though I do not claim that it is the most profitable branch of animal husbandry, I do know that for my own part I have made more out of feeding cattle for beef than out of cattle in any other way.

I may briefly premise that in the following figures I am taking into account only the finishing or the last six or seven months before marketing. Whether it is best to raise your own cattle or to buy cattle for finishing—as I have done—is outside the scope of this paper.

If a farmer keeps his cattle till they are two and one-half years old, they will probably weigh 1,000 pounds, if they are good ones. This, at 2½ cents per pound, will bring \$25.00, but there are a great many cattle marketed at less than this weight. Three year old cattle, weighing 1,200 pounds, will bring 3 cents, or \$36.00. A steer weighing 1,000 or 1,200 pounds in the fall should easily gain 200 pounds or more in six or seven months; in fact, in Ontario a great many stockmen

reckon that a good beast should gain 300 pounds.

Now suppose we buy a steer in the fall, weighing 1,200 pounds, at 3 cents, he will cost \$36.00. The interest on this amount at 8 per cent. for seven months is \$1.68. If we start feeding November 20th and feed six pounds per day till New Years and eight pounds per day through January and February, and ten pounds per day from March 1st till June 18th, he will consume 1,812 pounds of meal, which is worth (at \$17 per ton for bran and \$18 per ton for barley chop, allowing one-fourth bran and three-fourths barley) \$16.07. We do not feed hay, as we have no more than we require for our horses, but feed straw through the whole season, and we do not charge ourselves with the straw, as by feeding we convert it into a large pile of good manure, which is worth a great deal more than the ashes would be if we burned the straw.

The labor for each animal by feeding outside will not exceed \$4.20, as a man's wages and board will be worth about \$30 per month and one man can easily feed fifty head outdoors without being overworked. We will allow \$1.00 per head for grass for the last month. Now the expenses are as follows:

First cost of animal.....	\$36.00
Interest on above	1.68
Bran and chop	16.07
Grass	1.00
Labor	4.20

Total \$58.95

This is what the animal has actually cost.

Of late years a good beast of 1,400 pounds is easily worth 5 cents a pound at the end of May or first of June. This amounts to \$70.00, leaving a profit of \$11.05 after all expenses are paid.

I believe that it is highly important to keep a strict account of expenses. I weigh all the feed, and weigh cattle in the fall, so I can tell exactly whether the business is paying or not. I might state here that last year we sold our cattle on March 31st at \$4.75, but this year we intend to feed till June, as we could have got \$5.25 last year by keeping till that time.

What Kind of Cattle?

The second point to consider is, what kind of cattle to feed. I like a good animal, rising three or four years old, with a good broad back. Some stockmen claim that you rarely ever miss getting a good thriver if the animal has a good back. It should be so straight that if you laid a straight edge on it will touch nearly everywhere from horns to tail, and you want a well developed hind quarter, as the hind quarters have much of the valuable meat. Your steer must not be long-legged or pot-bellied, not like a dairy cow, but a blocky, low-set, squarely-built animal, showing lots of breed. In fact, the breeder your animal is the better the results will be. Never buy a part Jersey or other dairy breed for feeding, as you cannot get the meat in the right place. Neither do I believe in feeding a lot of old cows that are useless for milking, because they will consume the same feed as a three or four year old and will not command as good a price as the young animal at the finish. In short, the best is none too good.

How and What to Feed.

We feed our cattle out of doors in a deep ravine which is pretty well wooded and affords good shelter at all times, no matter what direction the wind is from. The ravine is amply supplied with water by a spring which runs right by the feeding place and which up to the present this winter has not needed the ice cut. We did not need to cut it more than a couple of dozen times all last winter. For outside feeding, I consider the spring as essential as the shelter, for when cattle are watered at pump, lake or slough, they do not get water more than twice a day; they are thirsty and take a big drink of ice water and then stand around and shiver till the water in their stomachs becomes warmed and they begin to feel comfortable once



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Shorthorns, Cotswolds and Berkshires constantly on hand, of all ages and choicest quality.—F. W. BROWN & SONS, Proprietors, Box 58, Portage la Prairie, Man.

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Dentonia's Merry Bahar, herd header, four years old and an excellent stock getter, must be disposed of to prevent inbreeding. Also a young Dentonia-bred bull. W. F. Cameron, Strathcona, Alta.



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FIVE STALLIONS from one to three years old.

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Choice Shropshire Sheep

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Of large English Berkshires. A fine bunch of large mature sows bred for early spring litters to two of the best boars in the Province. "Concord Dictator" and "Oak Lodge Roy." Roy was first in aged class and champion in 1908, at Toronto and Ottawa, and in 1909 first and champion at Edmonton, Calgary and Winnipeg. Orders solicited for spring pigs. Address:

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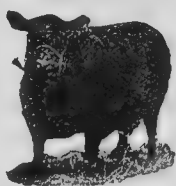
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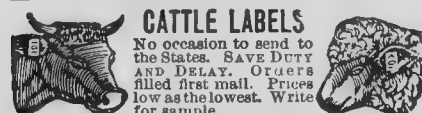
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F. TORRANCE, VETERINARY SURGEON

Graduate of McGill University. Diseases of animals treated scientifically. Surgical and Dental operations a specialty.

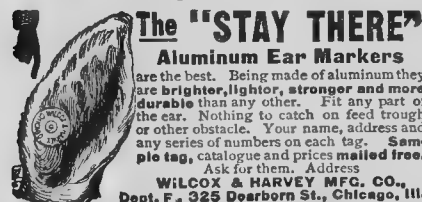
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CATTLE LABELS

No occasion to send to the States. SAVE DUTY AND DELAY. Orders filled first mail. Prices low as the lowest. Write for sample.

A. B. CAIL, 425 Main Street, Winnipeg.



The "STAY THERE"

Aluminum Ear Markers

are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address

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Dept. F., 325 Dearborn St., Chicago, Ill.

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's

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Fistula and Poll Evil Cure

—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting, just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

Fleming's Vest-Pocket Veterinary Adviser.

Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.

FLEMING BROS., Chemists
39 Church St., Toronto, Ontario

more. With the spring close at hand, I have never seen our cattle thirsty this winter. They take a few sips whenever they want it, the stomach is never chilled, and consequently the digestive process goes on uninterrupted. Our cattle are so comfortable where they are that they rarely ever leave the ravine.

We calculate to stock up in the fall whenever the opportunity presents itself, and we practice dehorning. This should be done about the end of October or first of November before the weather becomes severe, or if one were raising his own stock he should dehorn the spring before or as calves.

We commence about the 15th or 20th of November by feeding 5 pounds a day (although in the first part of my paper I have allowed for 6 pounds), 2 pounds bran and the balance barley chop. I think that when one is feeding straw it is necessary to feed either bran or roots, as the straw of itself is too constipating and the bran counteracts this tendency. I might say here that we feed all the meal at once in the evening. The cattle then lie down contentedly for the night, get up in the morning with a good appetite and feed away at the straw all day. They never look for meal again till evening.

As soon as we think the weather is becoming too cold and bleak for them around the straw stacks we move them down to the ravine, and one of the first things to provide is a box of salt. Then we draw straw to them. Last year we fed twenty-one head and drew six loads a week. This winter we are feeding thirteen and drawing four loads. They always seem to have abundance. We feed the straw on the ground and the meal on tables about three feet wide with planks nailed on the sides to prevent its being knocked off. These tables are raised about two and a half feet from the ground.

After New Years we still feed the two pounds bran and increase the chop to six pounds, making eight pounds a day. After March 1st we add another two pounds of meal to the ration with the same bran, and continue to draw straw as long as the snow is on the ground, or till seeding commences. By that time the steers will be roaming around and refuse the straw. We still feed ten pounds of meal each night as long as we have them. Some feeders claim that steers fed this way do not gain anything through April and May till the grass comes, as with roaming around and eating the dead grass it just takes the meal to keep them holding their own. After the grass comes they will gain about 3 pounds a day.

One great advantage I see about the outside feeding is that there is scarcely any Sunday work. We just run down and empty the meal on the tables, which only takes a few minutes. After seeding commences we do not draw straw. There is no watering, feeding or cleaning out. We move the tables for meal up to the buildings for the evening meal, and they rustle for the rest.

Now, I am quite aware that the profit in outdoor feeding depends largely upon the nature of your farm. Good shelter and water are essentials to a good profit. Those whose farms are not suitable for outdoor feeding will find that animals fed in loose pens, indoors, will make a greater gain in weight, although the net profit may not be so much on account of the greater amount of labor involved and the greater cost of equipment.

Before farrowing time, provide fenders in the pen of the brood sow by nailing a board six or eight inches from the floor in a horizontal position. This will prevent the sow from lying on her pigs.

Standing in the barn will spoil a horse quicker than good steady work. When you see his legs begin to stock up, hurry and get him to work at something, if it is nothing more than exercising in the yard every day. Keep that up till you have some real business to do.

Horse Trade in the Humboldt District.

W. H. B., Humboldt, Sask., writes.—"Horses are in great demand and anything in the shape of a work animal always finds a ready sale. Carload after carload of range horses are being shipped in from Alberta and practically sell themselves. Light horses of about 1000 pounds sell at around \$350 a team; mares fetch about \$400 a team. Horses of 1200 and 1300 pounds are at the outside weight in these Alberta shipments and there are not many of them. They fetch from \$450 to \$550 a team. During the summer months, herds of horses are driven through this part of the country from the Alberta ranches, the dealers selling all along the road, mostly for cash.

"They are now starting to ship in good sized horses from the East and altogether the horse trade is booming. Dealers can mix in old scrubs and sell them to advantage, as 'buy the horse first and size him up afterwards' seems to be the maxim of a good many farmers in the scramble to get hold of an animal. The country round here is settling up rapidly and there are no local breeders of any size and farmers at present are not raising more colts than they need themselves, so fresh supplies must come from outside sources.

"The horse problem seems to be the same all over the West."

The Suffolk Stallion for Cross Breeding.

In reply to a subscriber who asks for information regarding the use of Suffolk stallions for crossing with light mares of mixed breeding weighing up to 1,000 pounds, the object being to get greater weight in the progeny, Geo. Jaques, Lamerton, Alta., writes:

"I do not think there is a better heavy horse than the Suffolk in the world for crossing on all types of mares. Today we find the leading breeders in England and Ireland crossing their purebred Shires, Clydes, Hackneys and Thoroughbred mares with Suffolk stallions. The same Suffolk stallions have travelled the same districts in Ireland for 16 years and others over 10 years. This illustrates that the cross is all right, as otherwise I doubt very much whether a stallion could travel one season, let alone 16, in a country like Ireland, which is noted for its horsemen. The Irish breeders say, 'The use of the Suffolk horse with the small light mares of the south of Ireland has been found to impart strength and substance to their progeny, without impairing their powers of endurance and tough constitutions. The results of this cross are kind workers equal to a ton weight in draught on country roads, and can trot ten miles an hour in harness.' For a second cross I would recommend a Suffolk for the heavy fillies, any that had a dash of Thoroughbred on their dam's side. I would breed back to a good Thoroughbred and thus follow the example of the Irish and Australian breeders, who have proved beyond a doubt that this second cross produces more heavy weight carrying hunters than any other combination.

"As regards weight of stallion for this class of mares, I should advise one of the lighter ones, say between 1,700 and 1,800 pounds."

Statistics show that the importation of Clydesdales into Saskatchewan during 1909 was greatly in excess of previous years. Percherons also are growing favorites with the people of the West, and the respective associations, Clydesdale and Percheron, are more active than formerly in promoting the interests of their special breeds. Evidence of this, in so far as the Clydesdale Association is concerned, is found in their announcement that they are offering \$225 in special prizes for Clydesdale championships at the Saskatchewan winter fair, which will be held in Regina, March 22-25.



The Tick Question

Ticks do not develop wings in adult life, therefore never leave the animal except by accident. They not only sap the very life out of the sheep, but also destroy the wool.

Dr. Hess Dip AND DISINFECTANT

is sure death to all sheep ticks. It is also a guaranteed cure for Sheep Scab, Foot Rot and every form of Mange or other parasitic disease of the skin in horses, cattle, sheep, hogs, dogs and poultry. It is also excellent for disinfecting and deodorizing hog pens, chicken yards, cow stables, sinks, closets, etc.

One gallon of Dip makes from 70 to 100 gallons. Dr. Hess Dip and Disinfectant diluted one part to 70 of water meets the Government requirements for official dipping for sheep scab.

If your dealer can't supply you, we will. Write for circular.

DR. HESS & CLARK
ASHLAND, OHIO, U.S.A.

Purchasers of Holstein-Friesian Cattle

TAKE NOTICE that for the purpose of facilitating the sale of cattle by correspondence, where buyer and seller are widely separated, the buyer may make application to the Secretary of the Association for the inspection of the animals selected by him, the application to be accompanied by a fee of \$5.00 for the first animal and \$1.00 for each additional animal to be inspected in the same herd, and by the letters received from the seller, and on receipt of such application the secretary shall send an official to inspect the animals, before shipment, to ascertain if they have been fairly described.

G. W. CLEMONS,
Secy-Treas. Holstein-Friesian Assn. of Canada,
St. George, Ont.

"SAVE THE HORSE" SPAVIN CURE.



WAR DEPARTMENT.

Office Purchasing Commissary U. S. Army,
Saint Louis, Mo., Nov. 17th, 1909.

Troy Chemical Co., Binghamton, N. Y. I have great faith in your medicine. I cured a bad tendon on a horse which had been fired and seemed beyond all hope. I also cured a sprained tendon in another horse within two weeks. CAPTAIN J. N. KILLIAN, 3d & Olive Sts., Commissary U. S. Army.

PREPOT FIRE DEPARTMENT.

Troy Chemical Co., Binghamton, N. Y. I have great faith in your medicine. I cured a bad tendon on a horse which had been fired and seemed beyond all hope. I also cured a sprained tendon in another horse within two weeks. CAPTAIN J. N. KILLIAN, 3d & Olive Sts., Commissary U. S. Army.

The first case was a gray mare with bone spavin, over three years' standing. So lame everyone thought she would never go sound again. In six weeks' time she did not take a lame step. Let her to the Freeport Golf Club every work day.

The next case was a fine blooded horse with rimbone, belonging to a friend. In two months' time he did not take a lame step. Also cured a Polo Pony who was hardly able to get out of the stable, both hind legs affected with the worst bone spavin ever saw. Bought him for ten dollars, and everyone said I would have to saw off his legs and have new ones made. The whole hock was affected. He had been fired and blistered three times. I used "Save-The-Horse," and in ten weeks' time you would not know that he had ever been spavined, except for the marks of the firing iron. Have also cured a fine saddle horse of thoroughbred. Will be glad to see anyone regarding these cases. CARL DARENBERG.

\$5.00 a bottle, with legal written guarantee or contract. Send for copy, booklet & letters from business men & trainers on every kind of case. Permanently cures Spavin, Thoroughbred, Rimbone (except low), Curb, Splint, Capped Hock, Windpuff, Shoe Boil, Injured Tendons & all Lameness. No scar or loss of hair. Horse works as usual. Dealers or Exp. paid.

TROY CHEMICAL CO., 148 Van Horn Street, TORONTO, ONT. and BINGHAMTON, N.Y.

The Effect of Feeding on the Dressed Carcass.

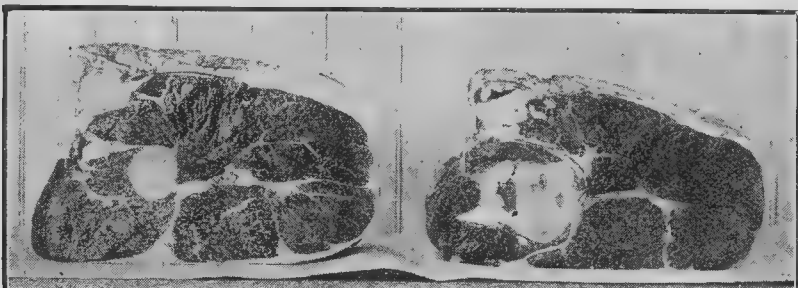
The meat demonstrations given during Short Course week at the Manitoba Agricultural College gave those who were present an opportunity of seeing just what effect fattening has on the dressed carcass of a beef animal. While feeding cattle has not been the most profitable kind of business to engage in, no one will dispute the fact that a well fed animal makes choicer beef than does a poor one.

The most valuable part of the carcass, from the consumer's standpoint, is the lean meat, but not all the lean meat is of the same quality nor is it all equally valuable. The lean meat of the carcass consists of the muscular part of the body of the live animal. The most tender lean meat comes from the muscles that are least used—those along the back from which the sirloin and porterhouse steaks are obtained. In fowl, the tender white meat comes from the breast, the muscles that are little used in life. The loin and rib roasts are the most valuable part of the carcass and together will probably make up about 30 per cent. of the

will ripen. The muscles of the fattened animal will expand and become heavier by means of the fat cells deposited within and around them. This produces what is termed "marbled" meat—when a muscle is cut crosswise the streaks of fat are seen interspersed throughout the piece of meat. In an animal that has not been fed, the lean meat is of a solid red color with little or not fat within the tissues, consequently it is usually tough.

Different types of animals will deposit fat in different ways. Heifers and cows usually are not so heavily muscled as steers, and also, when fed, develop a larger amount of internal fat. The same thing is true of dairy animals. Their meat may be just as well flavored, of just as good texture, and just as tender, but they will deposit a great amount of internal fat and their total muscular development is too small. A Jersey steer might have as great a percentage of loin steak to total carcass as an Angus but his total amount of meat is small and he is therefore not a desirable butcher's animal.

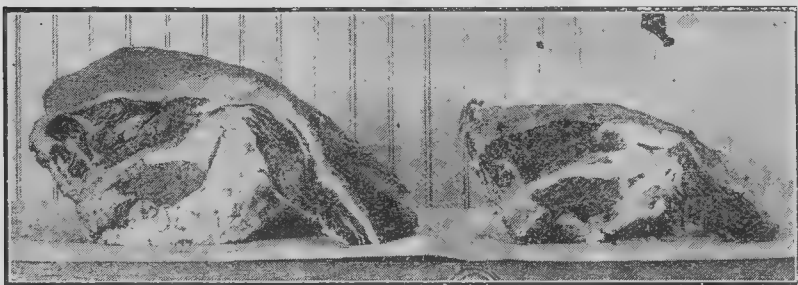
So much, in general, for feeding. The illustrations here presented show cuts of meat taken from the carcasses



Round Steak Cuts: Steer No. 1 on the left and Steer No. 2 on the right.



Porterhouse Cuts: Cut from fattened steer on the left and common butcher on the right.



Prime Rib Cuts: Illustrating the difference in size and quality between a well fattened animal and a steer of low flesh.

weight of the dressed carcass. Butchers also tell us that about 65 or 70 per cent. of their customers want meat from these cuts.

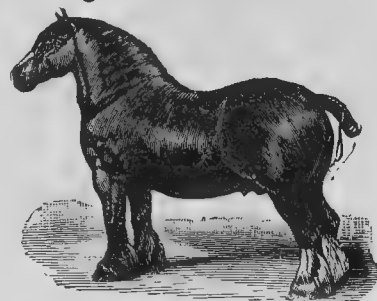
It is well understood that feeding will not materially increase the muscular tissue of the animal body. This is especially true of the mature animal, but not so to the same extent with young stuff. Young cattle develop muscle as they grow, and proper feeding is always essential for good muscular development. In feeding two and three year old steers, if they have not good muscular development to begin with, no amount or kind of feeding will make any decided increase in muscular tissue. In feeding animals we must have the natural muscular development; feeding will interpose fat within them and between the layers of muscular tissue and produce that "marbled" appearance in the cuts or meat that is so pleasing to the butcher. In this way the weight of the animal is increased and the quality of meat much improved both in taste and keeping qualities. The carcass of a well fed and finished animal will ripen in the cooler and improve in texture and flavor, while the poor animal will yield a carcass of poor quality and one which will decay before it

of two steers. Fig. No. 1 shows the round steak cuts; Fig. No. 2, the porterhouse cuts; and Fig. No. 3, the prime rib cuts of a steer that had been grain fed for four and one-half months and of one that had not been fed at all, just selected out of a very common lot at the C.P.R. stock yards. The cuts of the fed steer are on the left and those of the poor steer on the right of the picture in each case. We will call them, for convenience, steer No. 1 and steer No. 2.

Steer No. 1 when slaughtered weighed 1,330 pounds, his dressed carcass weighed 800 pounds, thus giving a dressing percentage of 60. Steer No. 2 weighed 1,000 pounds when slaughtered, his dressed carcass weighed 526 pounds, giving a dressing percentage of 52½. Both were shrunk for 24 hours before killing. Steer No. 1 when placed in the feed lot last fall was practically of the same quality as steer No. 2 at time of slaughtering and weighed about the same. At slaughtering time, steer No. 1 would be classed as a good to choice export animal and worth on the Winnipeg market about 5½ cents per pound. Steer No. 2 was bought two days before killing for 4¾ cents and was just an average fair butcher's steer, the kind which are most in evi-

Forest Home Clydesdales

Our offering of one, two and three year old Clydesdale Fillies are of a different class to what usually comes to Canada. They are large and full of quality and exceptionally well bred. Three by Baron's Pride. Not a plain bred one in the lot. A splendid pair of stallions two and three years.



Intending purchasers should see this lot before investing.

Carman, C.P.R., C.N.R. G.N.R.; Roland, G.N.R. and C.N.R. Telephone Carman Exchange.

Andrew Graham

Pomeroy, P.O.

Manitoba

J. W. & F. T. PETERSON

LITCHFIELD, MINN. (66 miles west of Minneapolis on Great Northern R'y direct Wpg. line)

IMPORTERS and BREEDERS of PERCHERON, BELGIAN, SHIRE and GERMAN COACH STALLIONS and MARES.

WE have on hand this year the best lot of horses which it has ever been our privilege to offer to the public. We have already made five importations this year, and our sixth will arrive late in December. We would like to call special attention to the large number of strictly first class Percheron mares that were included in J.W. PETERSON the November importation, all of them in foal to the world's F.T. PETERSON champion Carnot (66666). We will give \$200 for every colt from these mares during the season of 1910, provided owners will want to part with them. We make a specialty of furnishing our customers 80 per cent foal getters. Our horses are all raised or acclimated in the North, which accounts for high percentage in breeding. If you want an animal to make money and be a credit to your community and yourself, call on us before you buy. We stand on our past record, and every guarantee and statement made good. You get the benefit of life long experience. If you do not know just the animal suited to your locality, we will select a money maker for you. Two season's life insurance to extent of half value, carried free. Our new picture, "MARES IN PASTURE", will be sent free upon receipt of 10 cents to cover cost of mailing. Write for it.

Imported Shire Stallions, Mares and Fillies FOR SALE

My second importation has arrived and are nicely over the long journey. They consist of five stallions and ten mares. Among them are individuals good enough to win in any company. They have size, weight and constitution and as they have never been pampered are as hardy as native stock. The mares are in foal to first class stallions and all will be sold at a very small advance on cost. Come and see them or write for particulars.

JAMES M. EWENS,

Bethany, P.O., Man.

Bethany, C.N.R.

Minnedosa, C.P.R.

SINTON'S CLYDESDALES

My last importation comprises 22 Mares and 18 Stallions (personally selected), ages 1 to 4 years, got by such celebrated sires as Baron's Pride, Hiawatha, Everlasting, Baron of Buchlyvie, Baronson, Ruby Pride, Pride of Blacon, Clan Chattan, Labori, Raden Powell, Fickle Fashion, Scottish Fancy, Lord Lothian and other noted sires. Prices the very lowest possible. Stables in city.

ROBT. SINTON, REGINA, SASK.



GLENALMOND STOCK FARM, STROME, ALTA.

Shorthorn Cattle and Berkshire Hogs

A Number of Bulls For Sale.

C. F. LYALL, Prop.



BRAMPTON JERSEYS



First call for January shipment. We have in stock on our farms here Jerseys of all ages and both sexes for sale. Our public record proves the quality. Dairy production is our standard. We have a few extra choice dairy bulls on hand, fit for service and fit for show.

Canada's Greatest Jersey Herd.
B. H. Bull & Son, - Brampton, Ont.

J. A. FRAZER, Pres

G. ROWAN, Vice-Pres.

M. G. DOYLE, Mgr. and Secy

The Miniota Farmers' Mutual Fire Insurance Co.

Head Office: BEULAH, MAN.
Incorporated and Established in 1885

Amount of Insurance in force Dec. 31st, 1909, \$6,259,443.00

Assets - - - - - \$155,768.95

Cash Reserve, Assets - - - - - \$62,839.34

Financially strong, This Co. has the largest Cash Reserve per \$1.00 at risk than any other farmers' Mutual Co. in Western Canada.

Farmers get information re our "Blanket Policy," the best thing yet in the line of Insurance. Rates the lowest procurable. Reliable hustling agents wanted in all unrepresented districts. Correspondence solicited.

dence at the yards. Steer No. 1, along with a bunch of others of the same type, had been fed on oats, barley and bran in the proportion of 5, 3, 2. Also, corn fodder and a little hay were given for roughage, feed which every western farmer can have in abundance.

The weights of the various cuts in the two steers, together with the price now charged the consumer at the Winnipeg butcher shops, are as follows:

Hind Quarter.			
Cut	Steer 1. Lbs.	Steer 2. Lbs.	Price cents.
Wing rib	12	6	12½
Porterhouse	23	13	18
Sirloin .. .	40	23	18
Kidney suet....	15½	5	10
Rump	51	44	12½
Shank	14	11	3
Flank	17	8	5
Fore Quarter.			
Ribs	48	30	12½
Plate (brisket cut)	40	23	6
Shank	13	11	3
Shoulder ribs ..	28	19	10
Chuck	62	48	8

From these figures it will be seen that feeding not only greatly increased the weight of steer No. 1 but that the valuable cuts in steer No. 1 are almost double in weight those from steer No. 2. For instance, there were 23 pounds of porterhouse in steer No. 1 and only 13 pounds in steer No. 2; 40 pounds of sirloin in the former and only 23 pounds in the latter, and these steaks retail at from 18 to 22 cents per pound, depending on the quality. Because so many people, 70 per cent. it is claimed, want the high priced cuts, the butcher has difficulty in disposing of the cheaper parts of the carcass. For this reason he must charge a high price for the good cuts and sell the poorer ones much more cheaply. Winnipeg butchers pay the abattoirs 8½ to 9 cents a pound for the dressed carcass, so it is evident that the retailers are not making an especially large profit.

The butcher wants the animal with the largest percentage of edible meat. Feeding improves the quality of the meat, increases the dressing percentage and enhances the value of the carcass. It is estimated that the average butcher's animal that reaches the Winnipeg consumer will not dress above 53 to 54 per cent. The export steers will dress around 60 to 62 per cent.

Alberta Bull Sale Catalogue.

The catalogue of the auction sale and show of bulls to be held by the Alberta Cattle Breeders' Association at Calgary on April 5th and 6th can now be had from the secretary, E. L. Richardson, at Calgary, on application. It contains the pedigrees of 121 bulls representing the following breeds: Shorthorns, Herefords, Aberdeen-Angus, Galloways and Ayrshires. This sale is held in conjunction with the provincial horse show and fat stock show, April 5th to 8th.

Manitoba Live Stock Associations.

The Executive Committee and the Secretary-Treasurer of the Live Stock Associations of Manitoba have issued their annual reports. The financial statements show total receipts for the year of \$622.08 for the Horse Breeders' Association, \$4885.93 for the Cattle Breeders' Association, and \$529.36 for the Sheep and Swine Breeders' Association. The balances on hand are \$307.18, \$149.04, and \$102.80 respectively. In the Directors' Report, the following significant remarks are made:

"In presenting this annual statement of business done by your Association the past year, your Executive Committee feel that a most successful season has been the lot of the western agriculturist, but whether this is the result directly attributable to the raising of grain, or live stock, or jointly, this matter will have to be decided by each one personally.

"During the past ten years the population of the prairie cities has increased

over 300 per cent. and with increased wealth and prosperity, the population becomes much more particular in their demands for the finished product, all of which is further proof that in cattle at least, the producer should aim to give the consumer through the butcher the choicest meat possible to supply and in that way assist in obtaining better prices for the animal on the hoof.

"Much complaint is made by the producers that they are not receiving full value for their beef, though the fault is not entirely due to the lack of competition in purchasing, but rests largely with those who give little or no attention to feeding, or ship stock to the market when their is an abundance of it. We have in the province men who claim they are making a handsome profit out of steer feeding, and it is to be regretted that not more of the farmers of Manitoba are following in their steps.

"Another matter which certainly could be improved upon and from which a large revenue could be obtained for the breeders is the improvement of their stock. Witness the prices obtained during the fore part of the month at the sale of Shorthorns in Toronto, where a heifer under two years of age was sold for \$2,000 cash, a rather profitable two year animal to raise. As one viewed the great concourse of people gathered from all parts of Canada and the United States assembled there, to purchase animals and distribute among the breeders large sums of money, which no doubt will be reinvested in additional good stock, the thought was uppermost in one's mind, can not the breeders of Manitoba have some such sale and make this province the breeding ground of choice healthy stock? Such a sale would be of infinite benefit not only to the breeders but also to the province as an advertisement. Some of this good stock was not raised by large breeders but by some of the smaller ones.

"The cattle sale held the past spring was not as successful in point of numbers of animals sold as many of its predecessors, but in point of prices obtained was only a few cents less than \$100, and there is no doubt that these sales are of decided benefit to the cattle industry. The thanks of the Association are due the Department of Agriculture at Ottawa for its continued assistance to this feature of the year's work.

"There has been a slight falling off in the number of cattle received in Winnipeg during the past year, but the increased average price received for them makes the returns greater. There is no use, though, of expecting a grass fed animal being received at its journey's end in good condition, and the grade of the meat is not as firm as if grain had been used.

"Whether better prices could be obtained for their animals on the hoof by the establishment of public abattoirs, chilled meat plants, or the co-operative plans now in vogue in Denmark, is a subject that could no doubt be profitably discussed at these various stock meetings.

"Never, possibly in the history of the West, has there been such a demand for horses as in the past year. One would think that with the large number of work horses being imported into the West, that there is sufficient field in Manitoba to make this part of agriculture a most remunerative one to those breeders who can indulge themselves to this extent. During 1909 there were brought into Manitoba from the East 17,000 horses, all of which should have been raised here.

"The Executive of the Horse Breeders' Association has deemed it necessary in the interests of the Stallion Enrollment Act to prosecute some offenders, and it asks for the hearty support of the members throughout the province which leads one to think of the vast improvement possible to make in the selection of a proper sire.

"Canadian National Bureau of breeding: Your Executive have received some communications from this organization relative to placing several stallions in the province, but thought it was better to leave this to the Annual Meeting.

"Hogs have been and are still high in price and those who have kept everlastingly at it have assuredly reached the results of their endeavors. The cold winter of two years ago with the abundant harvests of 1908 and 1909 have

JOHNSON GUARANTEES TO SAVE YOU MONEY

J. S. JOHNSON'S PERCHERON, SHIRE and COACH STALLIONS

are always ready to sell and I find it cheaper for me to have a little talk with you about what I have to sell and how I sell my horses than it is to have some one make me some fine pictures. It is not the picture you want to buy, it is the money-maker. Mr. Buyer did you ever stop and think of the many different ways of raising and maturing stallions and the results of each as a sire. We all know that young stallions that are put in feeding pens when yearlings and kept there until they are two or three years old, are round and have the big fat on them and fully matured at that age. In some states they call them "peaches and cream" and claim that kind will lift the mortgage off the farmer's farm. I claim that kind will put a mortgage on the farm and keep Clara from wearing diamonds. Why? Because they have been overfed and crowded and from lack of exercise it makes them absolutely worthless as sires, and you pay from \$1.00 to \$2.00 per pound for that big fat when you buy. Molasses and honey will make fine looking stallions out of most any kind of horses, but we haven't got molasses and honey in North Dakota to feed them, so we have to be more careful in breeding in order to get that "Peaches and Cream" variety. I have them for sale and they are all pasture raised, under farm conditions and I sell at Farmers' prices and not panic. My prices are from \$500 to \$1000; only a few head higher. I have a good bunch to select from and can suit you on color, age, weight, quality and price. They average in weight from 1600 pounds to 1950 pounds and the oldest is but 3 years old. I will sell them on one and two years time and give you a 60 per cent. guarantee. Mr. Buyer come and see me. If you don't buy you will say you saw some good stallions and made one more friend.

My motto is: Prices right, terms to suit, satisfaction guaranteed and a satisfied customer to advertise me.

Reference any bank in our city. I have lived here 25 years. Ellendale is located 40 miles north from Aberdeen on the Milwaukee and G. Northern R.R. Would be pleased to have you call on me if in need of a stallion at the right price.

J. S. Johnson, Ellendale, N. D.

REGISTERED, BUT THEY ARE PURE BLOODS

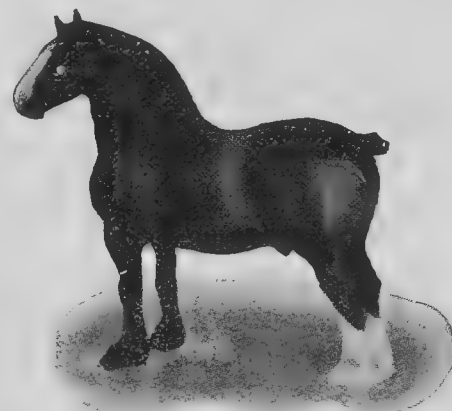
Fowlie & Sutherland

Prince Albert, Sask.

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Dealers in
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Horses, Shorthorn Cattle
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A good selection always on hand.
Prices and terms right.



Shorthorns GREAT PRIVATE SALE

Special prices and terms for choice breeding Shorthorns to make rooms for winter. Come and see them or write for particulars.

Also prize-winning Barred P. Rocks. Eggs in season.

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Great Auction Sale

OF
HORSES

Under the Auspices of

Brandon Winter Fair and Live Stock Associations

at

Winter Fair Building BRANDON

March 15th and 16th, 1910

This will be one of the greatest Auction Sale of horses ever held in the West. Special attention will be given to Registered Stock and Farm Horses. Parties having horses to sell and Intending Purchasers should give it their attention. For all information and entry forms address

CHARLES FRASER, Secretary, Brandon

T. C. NORRIS, Auctioneer

Sale Entries Close March 11th.

Special Passenger Rates from points in Saskatchewan and Manitoba on Certificate Plan.

had a deterrent effect on the raising of much live stock, but breeders state that, especially for hogs, there is a large demand.

"As to the sheep industry, this seems to be increasing in importance and no doubt would become more popular when the coyotes and wolves have been driven from the settled portions of the province. To many, the cost of fencing seems to be an insurmountable difficulty. In some sections of Manitoba, farms would be very materially benefited by a small flock of sheep to keep down the weeds."

Estimating the Age of Horses by Their Teeth.

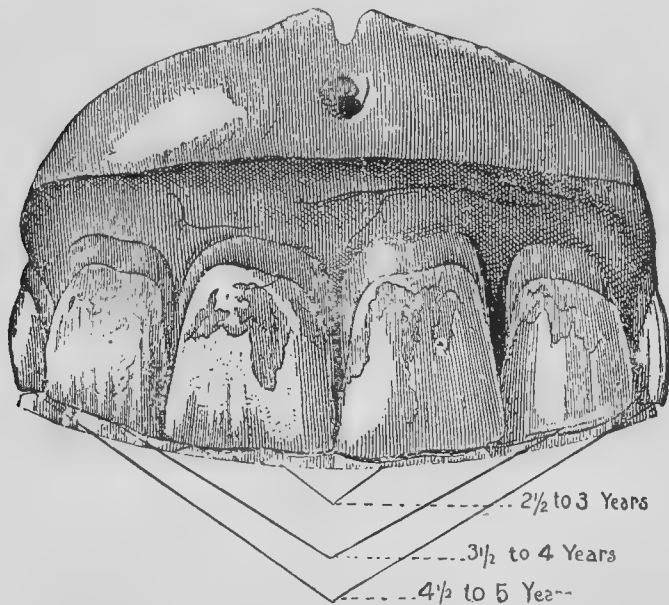
It is necessary to know the indications of age as they appear in the teeth that no animal be unfairly classed with those that are younger. The indications become in a degree satisfactory to those who have proven them many times by personal observation and experience in noting the differences that exist. It is to be remembered, however, that the foods fed have a marked influence on the wear of the teeth, thus making differences which are not solely due to age. Liberal feeding, which favors early maturity is also likely to affect the appearance and arrival of the incisors.

The difference in the appearance of

of their tables through wear, and at eight years the corner incisors, or outside pair, are so worn as to be almost free from any appearance of having tables. At nine years of age the tables have disappeared from the central pair of incisors in the upper jaw; at ten the marks in the next pair in the upper jaw are about worn out and when eleven is reached the tables have almost disappeared from the corner pair of the upper row of incisors. Sometimes the teeth are "bishops," that is, marks are made in the teeth to represent tables, thus making the horse appear to be younger by the tables of its teeth. This treatment may always be told from the unnatural appearance of the table as the normal tooth always has a rim of enamel around the tables.

After a horse passes beyond the age mentioned it is a difficult matter to make any further estimate with any degree of certainty. As the age increases, however, the upper surface of the incisors appears more triangular and the teeth spring from the jaw with a greater slope.—Judging Live Stock.

James Russell, Craven, Sask.—"I have been a subscriber to your valuable paper since its inception and must say that it has kept abreast of the times right along and that no farmer can afford to be without it."



Sketch of the permanent incisors, indicating the order in which they appear in pairs. The central pair of permanent incisors in both the upper and lower jaws appear when the horse is about two and one-half or three years of age, the next pair replace the temporary incisors when the horse is about four years of age, and the outside pair, making a full mouth, usually appear at five years of age.

the milk teeth or temporary incisors and the permanent incisors is readily understood after they have been once inspected. The temporary incisors are slender, narrow and constricted at the neck, and very white, while the permanent incisors are broader, thicker and usually of a light yellowish tinge.

The permanent incisors of both the upper and the lower jaws appear at the same time so that it is only necessary to refer to the upper. There are six permanent incisors in each jaw in the full mouth and these make their appearance in pairs about as follows: The pair in the center are the first to appear and they have displaced the temporary pair and are full grown when the colt is from 2 1/2 to 3 years old. The second pair, or the two next to these, are fully grown at 3 1/2 to 4 years and the third pair have displaced the two corner temporary incisors at 4 1/2 to 5 years of age. At this time the horse usually has a full mouth.

The best indications of the age from five to ten years is the order of the disappearance of the tables or marks in the incisors. At five years the tables in the central pair of incisors of the lower jaw show some wear but it is not until the horse is about six years old that they have almost disappeared. At seven years of age the "swallow-tail," as it is called, or the nick in the corner incisor appears. At this age, also, the two incisors next to the central pair lose almost all traces

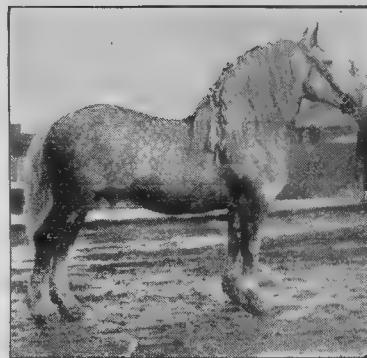
Using Oxen Instead of Horses.

One of our new Manitoba subscribers wants information about the use of oxen. He states that he entered for a homestead last June and anticipates doing some breaking as soon as the season opens up and has decided to use oxen rather than horses. His land is mostly level, with some parts rolling, more light than heavy soil, and a good deal of scrub. He has never handled oxen alone and will have no help and desires to purchase a team that is strong and well broken. He wants to know where he can purchase such animals, what age they should be so that they might be sold after using two years, what they would cost, and would a gallon of chopped oats three times a day and pasture be sufficient for their feed?

For breaking scrub land oxen will do good service. They do not mind the jerking around of the plow and are thus not worried so much as horses. People now-a-days are in too much of a hurry to continue using oxen where horses can be procured, but, as is well known, many oxen are still in use. They are cheaper than horses and require less feed while working. In fact it is a wonder how they live and work on the small amount of feed which they sometimes get. If the grass is good oxen will pick their own living at the noon hour but a little chopped oats would not hurt at all. They are easily

Registered Percherons For Sale

Including several the Summer Fairs don, Regina and these Exhibitions prizes, nine gold silver cups. We sons to select both American cords. Young mares sired by bosse, also choice stock. Western do well to inspect before purchasing mated and will be prices. Terms with satisfactory or come and see phone connection, from town. Visitors met at train.

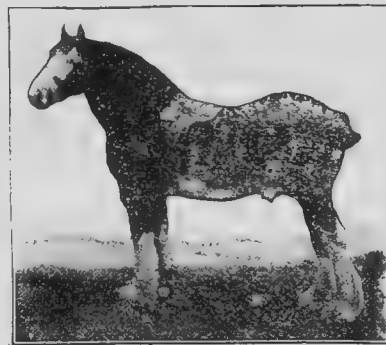


(Imp.) ROBOSSE.

prize winners at of Winnipeg, Bran-Saskatoon. At our exhibit won 74 medals and two have forty Percherons, registered in and Canadian Stallions and our imported Ro-American bred buyers would our horses as they are acclimated at reasonable given to anyone references. Write us. Long distance Farm three miles

W. E. & R. C. UPPER,
NORTH PORTAL SASK.

.. Hillcrest Stud of Clydesdales ..



Copyrighted 'BARON'S GEM'
Grand Champion, Winnipeg, 1907

We are offering about seventy-five high class imported and Canadian bred Clydesdales. Our importation was personally selected with a special view of getting size and quality combined, the two great essentials of the typical draft horse. We have some high class premium horses and a number of very promising young stallions that have won at the Scottish Shows, and their breeding represents the most fashionable strains. Our selection of females contains some of the noted winners in Scotland and Canada. Our business is conducted personally at very close prices. All trains met daily. Long distance phone in house. Write for catalogue.

Taber & Plummer
Condie, Sask.



BARON'S CEDRIC.

"Craigie Mains" CLYDESDALES

70 head of imported and Canadian bred Clydesdales to choose from. Our last importation of over 50 head is the largest importation made to America for 1909, and were personally selected by ourselves and is without a doubt the best we have yet imported, amongst them being several good premium horses, and a great many of them being winners in Scotland. Those who buy from us have no middle men's profits to pay, as we buy and sell our own horses at a small advance above cost price. Write for descriptive catalogue.

A. & G. Mutch,
LUMSDEN, SASK.

Shorthorn Dispersion Sale

Neepawa, Man., March 15, 1910

I will dispose of my entire stock of Breeding Shorthorns and Tamworth Swine, by public auction, on the above date. This sale will include 30 head of Pure Bred Cattle and some 35 head of Registered Hogs.

The cattle breeding is represented by the blood of Victor of Hulse, Masterpiece, Neepawa Chief and Crimson Diamond.

Swine herd headed by Long Joe.

A. W. Caswell, Neepawa, Man.



WISHART'S CLYDESDALES

AT Prospect Farm, Portage la Prairie, Man.

MARES and STALLIONS, all ages for sale, including three imported females. Also a few good Hackney mares and fillies. Farm 4 1/2 miles north of town; phone 462, ring 12. Call on, phone, or write

John Wishart, Portage la Prairie, Man.

When writing advertisers please mention The Nor'-West Farmer.

made too fat and then they pant readily and can't stand the work and heat so well. A mistake is often made of buying oxen too young. They are at their best at seven or eight years of age. A three or four year old team of oxen may have the advantage of a longer period of service but they will get stronger as they become older. One informant as to prices says that "just now teams are selling all the way from \$80 to \$140. Some may go higher but they would be good ones. We know of four teams sold last fall at \$85 a head. This was an extraordinary price."

We incline to think that these figures are too low, especially for this time of year. Perhaps some of our subscribers will quote us figures on actual sales, also letting us know something of the quality of the animals.

Breeding Army Remounts.

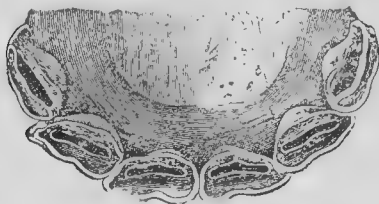
We understand that some proposition for breeding light horses is being put forward by a concern to be known as the Canadian Bureau of Breeding with headquarters in Montreal. We have not seen the prospectus of this company, but are led to believe that Thoroughbred stallions are to be distributed throughout Canada with the avowed intent that farmers shall breed army

ed on raising this kind of horse, makes them short over there, in case of war. They will have to make it worth the farmer's while to raise them there. Steps in this direction are now being taken (vide debates of the Royal Commission on horse breeding). At present, in peace time, they have enough horses for the British army. They are looking ahead, and, under an adequate system, they can raise enough of their own for the event of war.

"Supposing they don't. How often does the British Empire expect to be at war? Every time the Canadian farmer has some five year olds to put on the market? If not, what is to prevent their becoming a drug on the market, to be picked up at any price to suit the middleman?"

"As I understand it, the Canadian Government is guaranteeing nothing to the breeder, nor is the 'National Bureau' a concern of the British or Canadian Government.

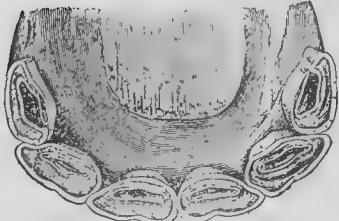
"If Canada wants to adopt an 'army remount scheme,' the farmer will be a noodle to support it unless under some system such as they use in France. In France the army takes 12,000 horses a year. The Government pays \$200 for troop horses; for chargers \$250 to \$300. The Government guarantees to take sound three year old colts, unbroken, direct from the farmer himself, shipping them to distributing depots. They have such rigid inspection of selected mares



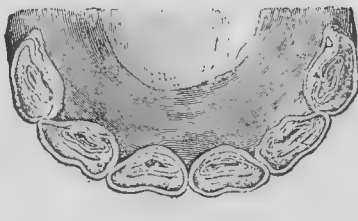
Five Years.



Six Years.

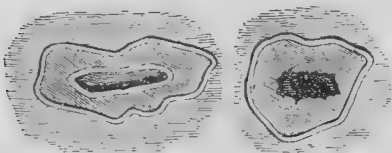


Seven Years.



Eight Years.

Sketch showing wear of tables in the lower incisors. At five years it will be noticed that the marks are very distinct and the tables worn but slightly in all the incisors. At six years the centre pair in the lower jaw show some wear, the mark becoming smaller. At seven years the second pair have nearly lost their marks, while at eight the third or outside pair show considerable wear with but a trace of the mark. The appearance of the upper jaw is similar, the tables having disappeared from the central pair of upper incisors at nine years of age, and so on.



The figure on the left illustrates the natural mark and table of a horse's tooth. It will be noticed that there is a ring of enamel around the black mark or centre. The sketch at the right shows the table of a horse's tooth that has been "Bishoped", or fixed, so as to bear some resemblance to a young tooth with the natural mark. This black mark has been made in the tooth by the use of a hard instrument.

remounts. How the Bureau expects to reimburse itself we do not know, but suppose that that part of the enterprise will be properly taken care of. With this rather meagre introduction, we present the following letter on the topic written by an Alberta horseman who seems to be thoroughly familiar with the remount question as it obtains in England, and whose advice to his Canadian brethren is therefore of value. He writes:—

"In the papers we read of ever increasing crops of foals which are going to be raised in the Dominion for 'remounts.'

"To attain this, Thoroughbred stallions are being distributed throughout the country. It would be interesting to know who is to be the gainer over this proposition.

"From the farmer's point of view, it looks like this: If 5,000 remounts are wanted at some time, they will be taken, provided they suit. If fewer are wanted, they will be taken, provided they suit. If none are wanted, none will be taken, whether they suit or not. "The Old Country farmer, having kick-

ed on raising this kind of horse, makes them short over there, in case of war. They will have to make it worth the farmer's while to raise them there. Steps in this direction are now being taken (vide debates of the Royal Commission on horse breeding). At present, in peace time, they have enough horses for the British army. They are looking ahead, and, under an adequate system, they can raise enough of their own for the event of war.

"When the British Government do so they will be sure of what they want in the event of war. 'King's premium stallions' are a feeble effort in that direction, but they will have to go further, and among other things buy direct from the farmer instead of the dealer."

Harness Dressing.

Many farmers make a practice of cleaning, oiling and repairing their harness before seeding every spring. This is a wise practice. Many very good harness dressings are sold on the markets. We have found the following preparation very satisfactory: First clean and wash them in warm water. When dry, apply the following dressing. By warming it first it can be more easily applied: Neat's foot oil, 1 gallon; bayberry tallow, 3 pounds; beeswax, 2 pounds.

Put the above in a pan over a moderate fire. When thoroughly dissolved add castor oil, 2 quarts. While on fire stir in 2 ounces lamp black. Mix well. Strain through fine cloth. Keep in tin cans. Harness should be cleaned.

Feed the sow very sparingly and carefully until the pigs are able to take all her milk, or there may be trouble with fever and she will dry up.

Golden West Stock Farm

Our new offering of Clydesdale Stallions is bigger and better than ever. We have them at all ages and all prices, ranging from \$500 up, both imported and home bred, sired by such noted sires as Baron's Pride, Everlasting, Labori, Acme, Baron Gem, Baron Kerr and others. We also have a big selection of Mares and fillies for sale.

Our success in the show yard and sales ring is known well enough and speaks for itself. Trojan, grand champion at the Dominion Exhibition at Calgary, is heading our stud.

Visitors are always welcome and will be met by our own rig at Balgonie Station, C.P.R. main line, 16 miles east of Regina, if notified in right time.

Our Stallions represent the real heavy draft type



Trojan (imp.) Grand Champion, Dominion Fair, 1908

P. M. BREDT & SONS, Edenwold P.O., via Balgonie, Sask.

Meadow Lawn Clydesdales



We are now prepared to supply our customers with anything from a range stallion to a **champion show horse**. Also a **choice** lot of **home bred** and **imported mares** that can **work in harness**, raise **foals** and **win championships**

in the best show rings. Young stock from such well known breeding horses as **Baron's Gem** and **Black Ivory**. Write or call over long distance phone for particulars. Will meet visitors at Condie on C.N.R. or Regina, C.P.R.

Traynor Bros., Condie, Sask.

T. E. LAW

T. J. SCOTT

Importers of Clydesdale and Percheron Horses



The best of pure bred stock on hand. Will also have a good lot of work horses for sale.

Law & Scott
Edmonton, Alta.

Barns on 13th Street, one block north of Jasper Ave.

Vanstone & Rogers

Importers and Breeders of
Clydesdale, Percherons and Hackneys

Our fourth importation within the year will arrive about Feb. 20 and is the best that money can buy.

Nearly all have been winners in the Old Country and will be winners here.

We have fifteen stallions imported last Sept., all under five, that are acclimated and ready to go out and pay for themselves. We are satisfied with a reasonable profit and will give you a gilt-edged guarantee and we will live up to it. Write us telling us what you want.

Vanstone & Rogers,
Head Office and Stables, Wawanessa, Man.

Jas. Brooks,
Manager, Vegreville, Alta.

Our Eastern Letter.

Canadian Seed Growers have Successful Convention at Ottawa.—Prepare to Meet Increased Demand for Better Seed.

(Intended for our Last Issue.)

The sixth annual meeting of the Canadian Seed Growers' Association was held at Ottawa on Feb 10 and 11. Though the attendance was not large, it was representative, delegates being present from all the provinces of the Dominion except British Columbia.

The directors reported progress. The work of the association has now reached a stage where it can be widened considerably and made more effective in producing more and better seed. During the year, steps were taken to encourage a number of wheat growers to adopt a scheme for multiplying their commercial supplies of seed as a means of solving the problem of supply. Owing to the work of selecting the seeds in the field coming at a time when farmers all are usually busy, the directors recommended that sub-section 1, section 33, be amended by striking out the words "standing plants" and substituting therefore the word "crops." They also recommended that the executive be authorized to secure seed of outstanding merit to supply in small quantities to applicants for membership or to regular members, to be used by them under certain conditions as may be determined by the executive.

The recommendations of the directors were adopted by the convention and will form part of the future regulations of the association. The recommendation regarding the selection of heads from the crop, instead of the standing grain, will make it possible to do the work of selection after the crop is harvested and in the barn. This, it is hoped, will aid in increasing the number who take up the production of registered seed, and also help to keep old members at it, who of late have been dropping out, because they had not time to do the work of selection in the field. The consensus of opinion of the seed experts present was that it would not weaken the system of selection, and that if the work were carefully done by this new plan, the standard of registered seed produced by members would not be lowered. It is of course all a question of men. A careful man will do the work as well in the one case as the other.

The report of the secretary, L. H. Newman, was a most comprehensive one. It covered the work of the year in detail in all the provinces. It showed that the association is making progress all along the line. A notable result has been the increased demand for good seed. The demand for registered seed is beyond the power of the members to supply. In 1909, 13,384 bushels of "general crop" seed was produced, 6396 of which was offered for sale. A feature of the year was the demand for registered seed abroad. Ninety-two took up hand selection last year, 64 had been received into full membership and 28 were eligible at time of meeting. The seed wheat growers numbered 188, oat growers 196, barley 60, corn 93, potatoes 80, not specified 41, and specials 26, a total of 684. The total full membership is 197, number affiliated 529. There were 94 applicants for membership. Farm crops improvement, seed fairs, etc., were dealt with, all tending to show the widened scope of the association's work and its growing influence in encouraging the use of better seed.

The representatives of the seed branch who inspected members' plots during the year presented their reports. S. J. Moore reported 87 members for the Maritime provinces, 47 of whom were doing good work. Several had started with poor seed. He advocated advancing the price for registered seed. J. C. Cote, reporting for Quebec, stated that the work was going well. Last season was favorable and yields were better, though rust was prevalent in several places.

T. G. Raynor, reported progress and added interest in Ontario. He had visited 30 growers of coarse grains. One half of the oat operators are doing good work, others only fair. Some

dropped out, others had taken up unpopular varieties and become discouraged. He thought the amended clause in regard to selection would help some. One Ontario grower sold his registered oats for \$1.25 per bushel.

W. C. McKillican reported for Alberta and British Columbia. There was an increase in membership and interest. The scarcity of labor was a drawback to the work of selection in the West. T. H. Woolford, of Cardston, Alta., who was present, spoke very encouragingly of the work in the west. He had done some work in improving Alberta Red wheat. This wheat was pure when brought from Kansas, but had become impure through bad methods of farming. Many considered the original wheat immune to smut, and had not treated it for this trouble, resulting in smut developing very quickly in wheat.

J. H. Grisdale, Agriculturist, Central Experimental Farm, discussing the reports of the inspectors, stated that members should be encouraged to take up better cultivation. The aim should be better quality, bigger crops and freedom from weeds. Members should grow only one variety of seed on each farm. He also advised advancing the price for registered seed.

Prof. Shutt thought the keeping of the seed was as important as growing it. As moisture in seed dries off, vitality lessens. It is not so much a question of time as the condition in which seed is kept.

At the evening session of Feb 10, Prof. C. A. Zavitz, of Guelph, spoke on heredity in plants and its bearing on agricultural problems. He is making a close study of existing varieties and then selecting. To show the effect of heredity he instanced the case of Red Fyfe wheat, which had been introduced into this country by an Ontario farmer in 1842 by a sample sent by a friend in Scotland who had procured it from a vessel loaded with wheat from the Baltic. Dawson's Golden Chaff was another instance of what had been accomplished by selection. Robt. Dawson, also an Ontario farmer, had selected, in 1881, a head of wheat different from the others in a field of Dawson, and from this had originated this famous fall wheat.

H. H. Graff, Simcoe, Ont., spoke on hybridizing the gladiolus and told of what he had accomplished in bringing this flower to its present high standard of excellence.

Potato growing and improvement was the topic of an interesting paper by W. H. Taylor, St. Giles, Que. He claims that the root crop was the best foundation for successful farming. He advanced the theory that all life contained a disease resisting germ, and in potato growing aim to select tubers from strong, healthy, vigorous plants. He gathers the seed in the fall, rejecting every hill showing disease. He prepares the land by growing oats on first breaking sod, manuring slightly. The following spring he sows buckwheat, manures heavily, then plows, harrows and plants and never plants more than 8 or 9 bushels per acre. He plants on the level varying the distance of the rows according to the variety planted and plants whole tubers, from 1½ to 2 inches in diameter.

In discussing this paper, W. T. Macoun, Horticulturist Central Experimental Farm, stated that there were greater possibilities for improvement in the potato than any other crop. The average yield in Ontario was only 111 bushels per acre. It was double that much in the Old Land. Late varieties were much less subject to blight than the early varieties. He advised planting the early ones early in the season and the later ones as late as possible, so as to avoid the blight season. Experience had shown that seed potatoes from a cooler and moister climate gave better returns than those from the driest part.

Experimental work with cereals at the Agricultural College, Truro, N.S., was reported on by E. E. A. Archibald. The results obtained were very similar to those obtained by Prof. Zavitz, at Guelph.

Prof. Shutt reported upon the further work conducted by him in 1909 in testing the influence of environment on the quality of wheat. Experiments had

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IMPORTER OF CLYDESDALE, PERCHERON AND HACKNEY STALLIONS

I now have my Brandon barn full of the best shipment of Clydesdale Percheron and Hackney Stallions, and Clydesdale fillies that I have ever imported. The most of the Clydesdales are sired by that great breeding horse "Hiawatha." Stallions range in age from two to four years old. I have no pony Clydes; they are all draft Clydes. I invite all lovers of good horses to call and see them. You will see the best lot you ever saw in Canada. I can sell them so cheap you will wonder how I can buy them and sell them at the price.

I sell them cheaper than any other importer for these reasons —

1. I select my horses personally in the Old Country.
2. I purchase for cash.
3. I do my own selling at the barns.
4. I have no partners to divide my profits with.

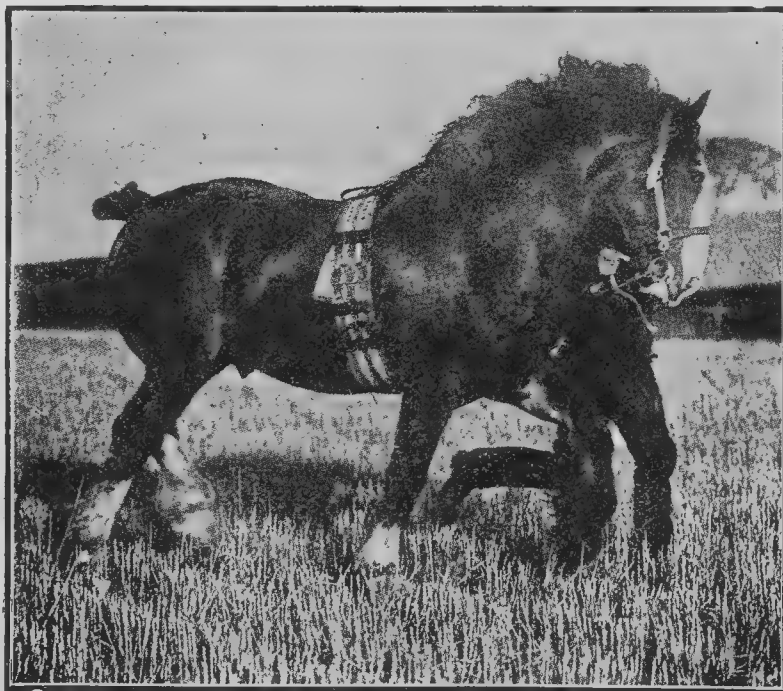
Therefore any reasonable business man will understand why I can sell cheaper than any importer in the business. I would be pleased to have you come and see my stock, and get prices before you buy. Terms to suit purchaser.

A reasonable guarantee given with every horse sold, and a quarter million dollars behind the guarantee. For further information write—

J. B. HOGATE

BRANDON

MANITOBA



Lord Guthrie in action, sire Marcellus, dam by Baron's Pride.

Clydesdales and Shorthorns

The greatest galaxy of show Stallions that ever stood in one stable in the West, horses that have stood at the top in the very best shows in Scotland for example, Arnot's Heir, Reserve for the Brydon Shield in 1907, the highest honor obtainable for a stallion at the Glasgow Stallion Show; Arnot's Heir was also champion at the Royal Northern last summer, besides winning many other prizes. He is a horse that never entered a Scotch Showyard and came away without a prize. Others such as Lord Guthrie, champion at the Royal Northern, Aberdeen; Silver King, a horse that was invincible whenever shown in Ireland, was always 1st at both Dublin and Belfast; Hugo's Charm, 1st in his class and reserve champion at the Border Union Show, at Kelso last August; Baron Barter, a winner at Elgin; and besides all the horses I lately exhibited at Chicago, horses that will be heard of for years to come, barring accidents, in our Canadian Showyards.

If you want a good one, don't miss this chance, and if you want a moderate priced horse with a grand pedigree, I have them also.

Shorthorns of all ages also for sale, the best to be had, and all by imported bulls.

JOHN GRAHAM, Carberry, Man.

been conducted at the Lethbridge Experimental Farm in 1908 and 1909, with wheat grown on irrigated and non-irrigated lands. Previous work had shown that wheat grown on old land contained more gluten than that grown on fresh breaking land, land which was more moist. Prof. Shutt had, therefore, come to the conclusion that if the moisture content of the soil affected the gluten content, then there would be a difference in the quality of the wheat grown on irrigated and non-irrigated land. He had found this to be the case. In 1909, the per cent. of protein in wheat in non-irrigated was 17.66 as compared with 12.84 on irrigated land, a difference of nearly 5 per. cent. in favor of the dried land. The irrigated land, however, gave the larger yield.

For a few years back, a seed company at Waterloo, Ont., has been endeavoring to grow home-grown root seed. Mr. Otto, Herold, reported on the work, which so far had proven very satisfactory. Several of the delegates who had grown roots from this company's seeds spoke in high praise of their quality and of the increased production resulting from their seeding. The great drawback to producing home-grown root seeds on a large scale is the scarcity of help. The high cost of labor in Canada as compared with European countries from which a large share of our root seeds come, works greatly to the disadvantage of the grower of Canadian seeds.

G. H. Clark, Seed Commissioner, read a well prepared paper upon European methods of seed selection in the improvement of field crops, based upon his observation and study in Europe last summer. He dealt principally with the work of Prof. Nilsson, of the Svalof Experiment Station in Sweden. Prof. Nilsson's work is based upon systematic selection and has been productive of great results in improving the farm crops of Sweden. Mr. Clark advised the Association to incorporate into its regulations the best part of Prof. Nilsson's method.

Dr. Chas. E. Saunders and Prof. L. S. Klinck discussed the paper, giving some details of the work carried on by them at the Central Experimental Farm and Macdonald College, respectively, in seed improvement.

Principal Black, of the Manitoba Agricultural College, spoke briefly of the work of seed selection and its influence in improving farm crops.

Several resolutions were passed by the convention. One expressed the appreciation for the continued financial assistance rendered the Ass'n and its work by the Dominion Department of Agriculture. Another commended the work of the Ontario Corn Growers' Association, while another recommended the establishment of farm demonstration stations to promote the use of good seed and the supplying it on a larger scale to the people in the locality.

The officers elected are as follows: President—Dr. James W. Robertson; Vice Presidents—Prof. C. A. Zavitz, G. C. Gigault, Deputy Minister of Agriculture for Quebec, and John Mooney, Regina; Directors—Prof. Zavitz, G. C. Gigault, T. H. Woolford, J. Demetriou, Que., Hon. W. R. Motherwell, Thos. H. Waugh, J. O. Duke, John Mooney, S. A. Bedford, W. W. Hubbard, John Bracken, Prof. Cumming, Geo. Harcourt, Geo. Batho, Principal Black, Wm. Thompson, Theodore Ross, Prof. Klinck, D. Innes, J. W. Wheaton.

The meetings were presided over by Dr. Robertson who in closing the convention asked the co-operation of the Association in assisting the Conservation Commission. The commission wanted to obtain exact data regarding farm conditions in one or two townships in each province and he reminded the delegates that they might be called upon to assist in the work.

On the evening of Feb. 10th, Dr. Robertson entertained the delegates to dinner at the House of Commons restaurant, where a most enjoyable hour was spent, those present tendering Dr. Robertson a hearty vote of thanks, and wishing he and Mrs. Robertson a pleasant European trip, which they will begin about the end of the month.—"Easterner."



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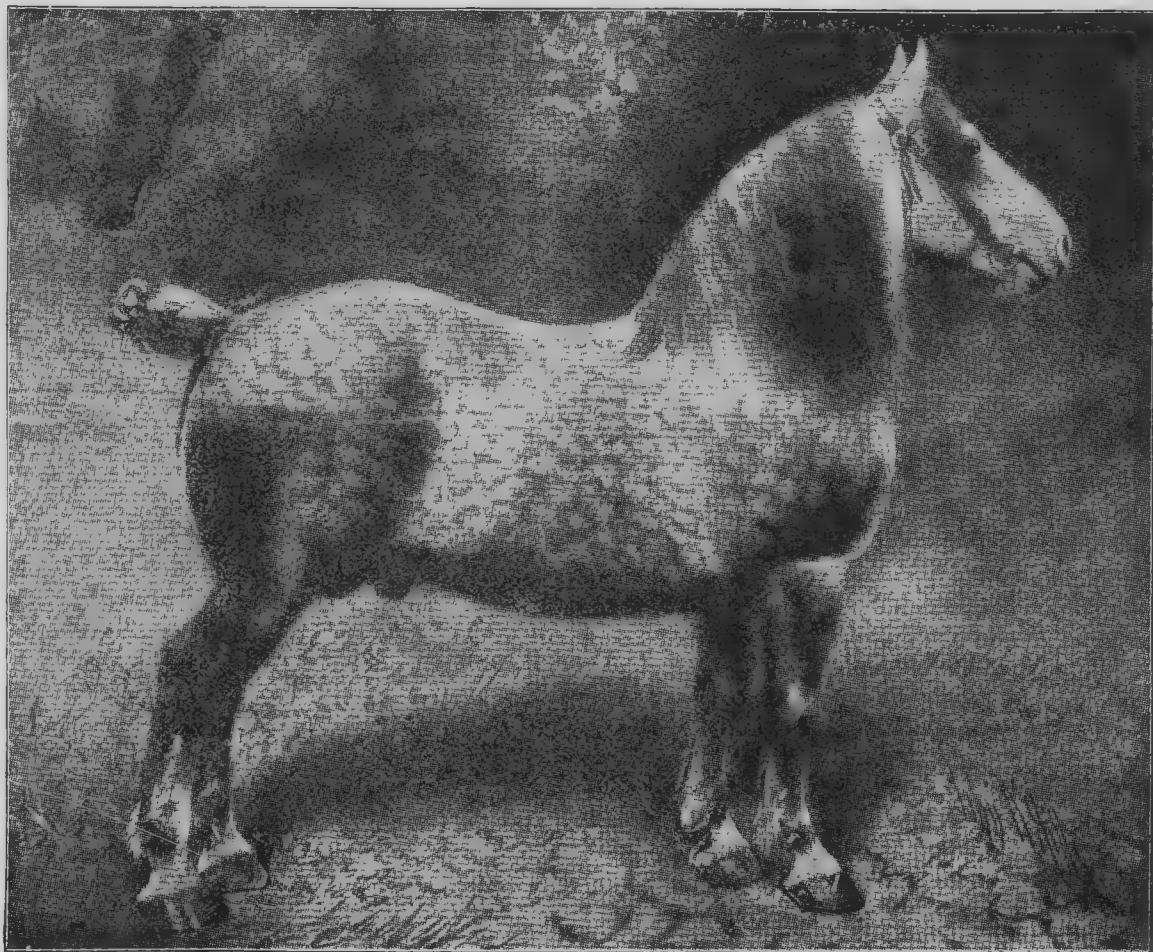
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Must have fine eyes;
Likewise a bold and striking mien,
And faultless ties.
But later on her fancies roam
To one who'll bring his wages home.

A man's ideal at seventeen

Must be a sprite;
A dainty, fluffy, elfin queen
Of sheer delight.
But later on he sort of feels
He wants a girl who can cook meals.

The Foreman of the Ninety Mile.

By Bruce M. Jones, Piche, Sask.

Black Pete, the foreman of the Northern Construction Co.'s ninety mile camp on the Rupertsland Railway, standing in the doorway of a little log cabin, gazed out into the semi-darkness of a dull November morning towards the stables and bunk-house. A savage look of impatience came into his mastiff-like face. It was now nearly ten minutes since he had called out to the men in the bunk house. Again he bellowed, "Roll out there," and waited. Still no response, so he went back to his cabin, donned his Mackinaw coat and a pair of rubber boots and made his way through large pools of water which lay covering the ground in all directions, to the bunk-house. It was a chilly day and commencing to snow heavily. In the bunk-house one group of men sat crowding around a small iron heating stove; the rest of them who could not get places there sought comfort by lying rolled up in their blankets in the centre of the room where the floor was covered over with hay and spruce boughs. Around them, stacked up against the walls, were trunks, hat boxes, suit cases, gun cases and various other impedimenta.

"What's the matter with you fellows," exclaimed Pete as he stood in the doorway, glowering angrily at them. An ex-London 'bus-driver seated beside the stove removed a pipe from his mouth, spat on the stove, then looking up at the foreman said, with measured tones: "Well Boss, we've voted this 'ere job's a fake and we've decided to go on strike. You turn us out day after day in this weather which ain't fit for a bleedin' dawg ter be in. You work us from daylight till dark; there's none of us 'ad our clothes dry since we came on the job. This 'ouse lets the water in and you don't give us time to fix it up. We came from the Old Country on the 'arvesters' excursion to go 'arvesting. The bloke in the office in Winnifred told us as 'ow this 'ere job wur better than 'arvesting, 'cos being as we was all pals we could stay together. 'E tole us we would 'ave nice short hours of work and 'as 'ow we would find lots of big game up 'ere fer us to 'unt in our spare time. Bloomin' liar, 'e wur. We don't mind 'ard work but you're a darned slave driver, and we ain't goin' to stand it no longer. Unless you agree to give us shorter hours and not work us except when the weather is favorable, not a man 'ere is goin' to turn out. We know you are trying to take advantage of us because we 'ave just come into the country but we ain't quite sich 'bloomin' fools as you take us for."

The Londoner looked around at his mates with a smile of evident satisfaction on his rubicund face as he concluded this oration, while they glanced expectantly at the foreman.

"Strike, eh!" said Pete quietly. "Well all you fellows that wants to quit come around to the office in about a couple of hours and get your time."

"Good for Shorty," said one of the men, slapping the old 'bus-driver on the back as soon as Pete departed. "That's

the way to talk to 'im," exclaimed another. "'E's only a big bully. We knew you wurn't afraid of 'im."

The majority of the men were unused to hard labor. Among them were clerks, barbers, drapers and many others whose backs ached and whose hands were cramped and blistered by the unwonted toil of clearing stumps from the right of way. They found Pete a hard task-master. He would walk up and down the right of way watching the grubbers, stopping every now and then to stand and watch anyone, whom he thought was not working hard enough to suit him, or going over among the teamsters he would stand among them like a ring-master in a circus. Every now and then his long blacksnake whip would crack out at some team that was not keeping up the pace. There were 'bus drivers, farm waggoners, draymen and carters, men who had had years of experience in driving horses and prided themselves on their skillful horsemanship. Pete treated them as though they were entire novices. Often Shorty, the London 'bus driver, and one or two others of the more daring, dropped their lines and attempted to remonstrate at Pete's treatment of themselves and teams, but the foreman took no notice. With oaths and curses he drove them back to work again. They hated and feared him at the same time, for the gigantic raw boned frame of the man, together with the ugly determined look on his countenance boded ill to those who should try to thwart him.

As soon as the two hours had elapsed the whole company went over to the little log building which served the dual purpose of office and foreman and clerk's quarters. Pete and the clerk were seated together at a little desk and as the clerk called out their names the men came forward and Pete handed them their time cheques. After all had been served the clerk told them that the cheques were payable either at the Company's head office in Winnifred or at the Headquarters' camp which was situated ninety miles south at the junction of the Rupertsland and Canadian Northern railways.

A few of the men left the office as soon as they had received their cheques but the majority of them stayed there, wondering what to do next. Winnifred was hundreds of miles away, and how were they to reach the Headquarters' camp ninety miles distant with all their baggage to pack through a great wilderness of mountain, forest and floating muskeg? They had been shipped up from Winnifred on the Company's boat, a long journey up the lakes and river, and the best way to return was by that boat which was not expected to return until the middle of November and this was only the second day of the month.

The foreman seemed rather to enjoy their discomfiture and looked from one to another with a sarcastic smile on his face while the clerk put away his books.

"Well, fellows," he said at length. "I guess that's all we can do for you here."

A young man in a dilapidated Norfolk jacket, riding breeches, and leggings pushed his way up to the desk. "How am I to get my luggage moved?" he said to the clerk, attempting a lofty air. The clerk glanced at Pete and grinned.

"Well, sir," he said, "the Company have been employing Indians at five dollars a day to pack fifty pounds over the muskeg and furnished them gum boots. You might be able to hire some of them."

"Don't think they would do it now," put in Pete. "There are several creeks between here and Camp 1 which ain't bridged yet and they will be swollen up pretty badly now with these rains. You'll have all you can do to cross 'em yourself, young feller, without trailin' baggage and Indians along with yer."

This remark of Pete's was a regular damper to all and they slowly filed out of the office and assembled in the bunk-house to discuss the situation. A lengthy discussion ensued. Some decided to forsake all their baggage except their blankets and walk to the Headquarters' camp while others preferred to stay and wait for the boat to take



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them back to Winnifred. Then there was the question of food. Could they purchase from the Company's supplies? Shorty volunteered to find out and returned to the office to interview the foreman. In about a quarter of an hour he came back, carrying a large cheese under his arm while the capacious pockets of his tattered overcoat were crammed with various other eatables. He hastily deposited the cheese on the floor, took off his overcoat and placed it on top, then covered the whole with his blankets and seated himself on top of the pile.

"It's no go, mates," he said, surveying them disconsolately. The bleedin' boulder won't sell any of the grub. 'E says all the camps along the right-of-way is deserted by now since the grade is built up to 'ere and that we will 'ave to run chances on what the bears 'as left fur any grub that's been left in them, and 'e said that it would take a bloomin' tough old river driver to get back to civilization from 'ere. 'E can't bluff me though. Blowed if I ever seed a river driver, but I'm a tough old 'oss driver and I'm goin' to 'ave a darn'd good try any'ow. Cook wur in the office when I left so I pinched these 'ere out of the cook 'ouse as I was comin' by," he added, denoting the spoils beneath him. "You, Bill and Ted," he said to two of his chums, "is like me. 'Aven't much luggage, so come with me fur company and we'll share up on this swag but we must get away soon before the cook misses the stuff."

The three immediately began making preparations for the journey. The provisions were wrapped in a blanket which was packed on Shorty's back while their stock of blankets were packed on the backs of the other two. One blanket, which was rather the worse of wear, they tore into strips with which they swathed their legs for protection from the icy waters in the muskeg.

In a short time they were ready to go. Before leaving, Shorty told the others that if any of them cared to follow they would not get lost for they 'ad only to turn south and keep straight on along the right of way until they got to the end. The clerk 'ad told 'im that there was an 'otel and "pub" there where they could get their cheques cashed if they wanted to and 'e 'oped to meet some of them there.

"The Cockneys is pretty game," said Dave Evans, a Welshman, after the three Londoners had departed. "Only they don't quite realize what they're up against. The cook told me yesterday that the moose were pretty dangerous at this time of the year and they are awful plentiful along the track. Then there's bears and wolves and all kinds of other wild animals up in these parts and none of those lads has a rifle. Now we have lots of fuel and if we only had some grub we could hang out here nicely till the boat comes. Some of us have guns and rifles so we ought to manage to shoot something."

None of them cared to follow the three Londoners down the grade and all that day and the next those who possessed guns and rifles hunted around the camp but without success. Not a rabbit or bird had been shot. At the close of the second day they became desperate. The only thing to do, seemingly, was to force their way to the company's stores. There were a score of them against Black Pete, the clerk and the cook. Surely they would overpower these.

The supplies were kept in a log store house some fifty yards in front of the office. It was finally decided that some of them should break open the door while those with the firearms should be close at hand to protect them should those in the office try to interfere. That evening the clerk, foreman, and cook took their supper together in the office. After finishing his meal, Black Pete got up, put on his coat, and a pair of long rubber boots and then lit a lantern preparatory to going to the stables to feed the horses for the night. Meanwhile the cook, having washed the dishes, had just thrown a pan of dish water outside and stood looking out into the darkness. "Say

Pete," he called to the foreman, "they're at the store-house."

"Well come out of that doorway," commanded Pete, as he made towards the door.

Before the cook could comply, a shot rang out, a bullet grazed his cheek and imbedded itself in a log in the wall behind. Simultaneously a shower of small shot riddled the pan he was holding. The foreman bounded through the open door-way and swiftly closed the door behind him.

"Get away from there before any of you get hurt," he yelled.

He was answered by a shot which splintered the eaves above him.

Pete was an adept at gun play. In a second he had whipped a revolver from the hip pocket of his overalls and directed three shots in quick succession to the point where he had seen the flash of the rifle.

Shortly afterwards Dave Evans was having a nasty wound bandaged where one of the foreman's bullets had ploughed a furrow across the front of his right shoulder. The Welshman was seated on a box near the centre of the bunkhouse, surrounded by his mates. They had just finished dressing his wound and had just helped him on with his shirt when the door opened to admit the foreman.

"Seems as if you fellows can't behave yourselves when you get a couple of days off work. You might have been better employed clinking up those walls and putting yourselves up some bunks than trying your monkey work on me," said Pete. Then he paused a few moments in which he seemed to be counting them.

"Whose away?" he asked next.

"Shorty, Bill and Ted," answered the man nearest.

"Two grubbers and a teamster, eh! Did you ever drive horses?" he asked the man.

"Drove one 'orse in a milk cart once," was the answer.

"Well you get up with the other teamsters tomorrow. feed and harness Shorty's team and bring them out to work."

"Now I want youse all to turn out in good time in the morning," he said to the others, "or I'll starve you like rats. Those who don't work don't eat on this lay-out, and remember its dangerous to go near the door of that store-house. Now it's getting late and time youse was all in bed and that light was put out."

"So saying he deliberately produced his revolver and with a single shot snuffed out the candle at the further end of the room. No one dared to light that candle again that night. They neither saw nor heard him go out. With the aid of matches they sought the nearest blankets and crawled beneath them, nor did any of them attempt to speak, lest the foreman should still be in the building.

Next morning while the red tints of dawn glowed over the pine tops on the eastern sky-line, Pete led his gang to work again. The men were in much better spirits than on the day before. A plentiful breakfast had been provided them after their long fast and somehow they were glad to resume work again and settle down to the old routine. That giant who strode about fifty yards in front of them covering the ground at a pace which forced half of them on the trot to keep up certainly held the whip hand over them and now they knew it.

It was a full mile and a half from the camp to the place where they worked. As it was getting late in the season, time could not be afforded to build another camp closer and the men were turned out earlier to make up for the time it took to go back and forth. The work was to connect the grade on the further side of the river with the bridge. This bridge was built of timber cut in the vicinity. It was about two hundred yards in length and was fifty feet above the water. From here, a quarter of a mile down the river could be seen the top of the falls where the river flowed over a mighty precipice some 300 feet deep, forming one of the greatest northern cataracts, which kept up a continuous thunder over the surrounding country. Hitherto un-

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known except to the Indians and a few trappers, these falls would, on the completion of the Rupertsland Railway, become a favorite haunt of tourists, owing to their exceptional beauty and natural grandeur.

That day the foreman was as relentless as ever, in fact he became even more overbearing than before. Now nobody seemed to be able to go fast enough for him; he appeared to be bent on making up for the time which had been lost on the two previous days.

Seeing the man who was driving Shorty's team accidentally dump his scraper in the wrong place, Pete rushed at him as though he would bear him to the ground.

"Who told you you could drive horses," he roared in his fury. The man looked askance at the upturned scraper.

"Well," he said penitently, "I can drive anything that goes on wheels but I'm blest if I can drive a bleedin' spoon."

"Pity you don't go on wheels so as you could follow up that team a little smarter," Pete retorted. "Now hold them," he roared as he lashed out at the team with his blacksnake whip. The horses bounded forward and the man bounded after them fearful lest he should be the recipient of the next cut. Then Pete sauntered on. Men lashed up their horses as he approached. At the further end the grubbers redoubled their exertions as Pete strode toward them surveying their bent backs critically. Suddenly he stopped and stood staring at one of them who hacked hopelessly at a large birch stump whose roots seemed altogether unseverable.

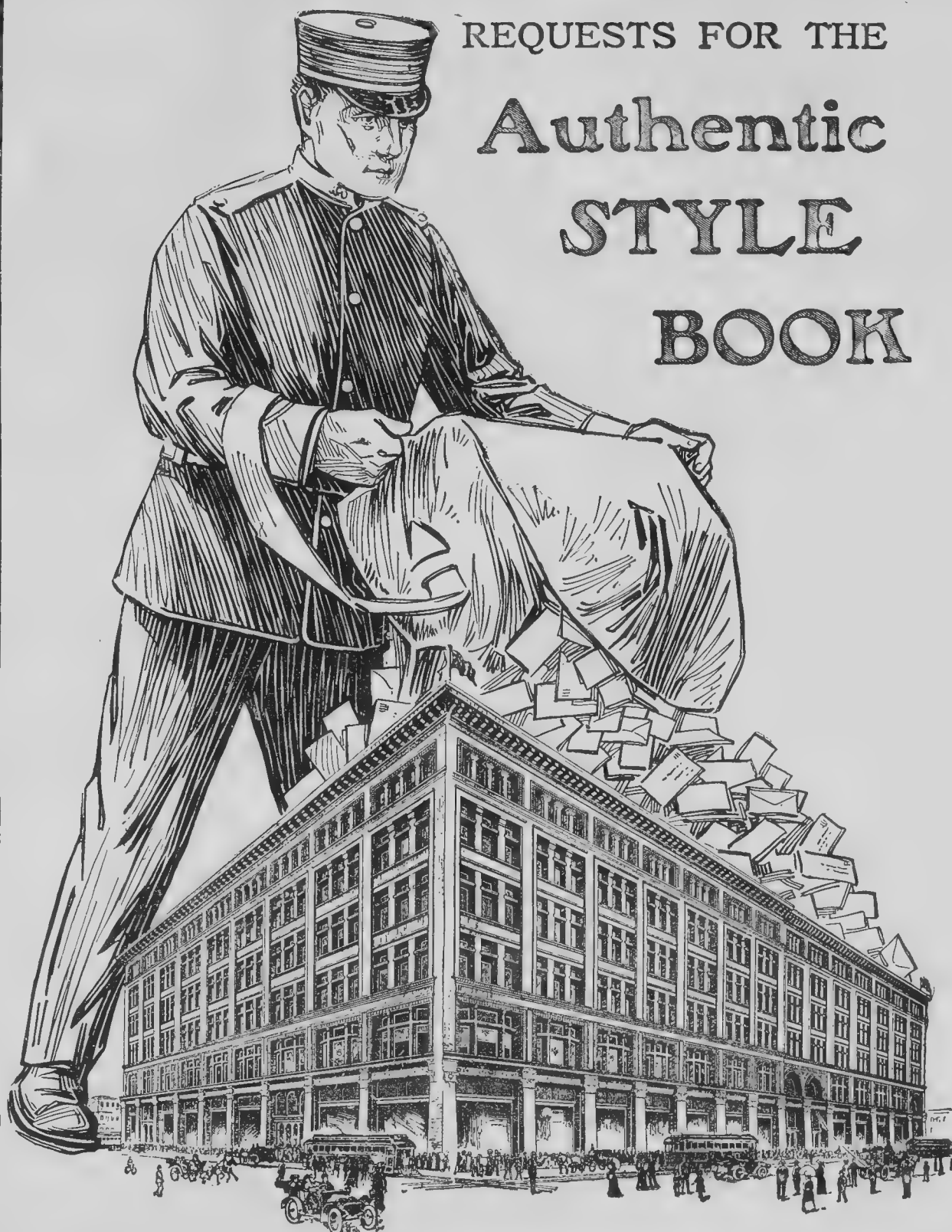
"Is it going to take you all day to get that stump out?" he yelled after he had watched the man a few moments. Then swiftly snatching the tool from the man's grasp he looked at its dull edge. "Don't you know better than to come out here with a tool in that shape?" he said fiercely. "What do you think we keep grindstones for?" Then close at hand his eagle eye spied out Dave Evans. The Welshman had been the best worker among them but to-day's toil had opened the wound he had received the night before. He tried to conceal from the foreman that he had been wounded, but now he felt the foreman's eyes upon him, and, try as he would, he was unable to wield the heavy grubhoe except in a very awkward manner.

Pete seated himself on a stump next the one Dave worked at and calmly producing a tobacco pouch proceeded to roll a cigarette which he puffed at contentedly while he watched Dave laboring. The Welshman with gritted teeth and pale face tried to work as formerly but the pain from his wound was beyond endurance. Still he determined to go through the ordeal if possible.

The men always held that there was a considerable streak of the Indian in Black Pete, and now he certainly seemed to display a savage love to watch a fellow creature suffer. But as Pete sat and watched, the savage nature died within him. He became no longer the barbarian torturing his victim. He saw something in the man's face that he liked. That pale face portrayed grit and determination. Pete decided that there was no yellow streak in this man's make up. Yes, he liked this man and felt strangely drawn toward him. Those about him he looked upon as so many machines out of which it was his duty to extract as much work as possible. They might hate him but he did not care, but here was one he would like to befriend.

As the man approached the limit of his endurance, Pete surprised him.

"Drop that grubhoe, lad," said the foreman in a kinder tone than Dave had ever heard him use before. "You know it's no use trying to work when one don't feel fit." Then from one of his pockets he produced two keys. "Here go back and take these to the clerk. The big one is the key to my trunk, and this little one is the key to my medicine chest which he will find at the bottom of it with some bandages. Tell the clerk I want him to fix you up as well as he can and to take that camp bed that's in the store



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house and fix it up for you in the office."

An icy cold wind was blowing up the river and as Dave got well out onto the bridge away from the shelter of the tall timbers that bordered the river a cold chill gripped him. The combined effect of the suffering he was undergoing together with the height of the bridge brought on a faint. His foot tripped on one of the bridge timbers, he staggered, and the next moment he was struggling in the water.

The gang rushed out onto the bridge. Men left their teams and dropped their grubhoes. The overbearing foreman was forgotten. The wounded man would live but a short time in those waters. None dared attempt a rescue. It seemed hopeless even for a good swimmer to reach poor Dave now for he was rapidly drifting down stream, and was making a feeble effort to swim, which only just managed to keep him from going under.

They looked at one another in despair. Could nothing be done? What was that?

About a hundred yards off on the right bank of the river adjacent to where the drowning man was still struggling a shower of snow was hurled from the bushes overhanging the steep cliff-like bank. From this a dark form precipitated itself into the torrent. Presently it rose to the surface and they recognized the black curly head of the foreman. He had timed himself to a nicety. A few powerful strokes brought him beside the body of the drowning man which was fast drifting towards him. They were well out in midstream now. Those on the bridge were unable to repress a cheer as he struck back with his burden, but the current was strong. Pete, though a strong swimmer, found himself unable to make headway. He tried various ways of holding up his burden. After swimming some time endeavoring to get back, he stopped, and thinking the current might not be so strong behind he reversed and made for the opposite bank, but he had lost a lot of ground by now. Those on the bridge realized this most. They watched the pair in the stream. Then they watched the brink of those thundering falls. The space between them had lessened considerably. Would he make it? Yes, he might! He was making fair progress now, but the river flowed even swifter as it neared the falls. Never had they seen the giant foreman exert himself to any extent, but now he battled the torrent with all his Herculean might. Suddenly his progress stopped. An undercurrent was sucking them under. "Gone," cried one. "No, there they are," cried another as Pete reappeared, still holding up his burden. He was close to the bank now but close also to that great roaring abyss. He might even yet save himself by parting with his burden, but this never occurred to him, and he still fought for the shore.

Those on the bridge neither moved nor spoke till both men disappeared for the last time. Then they rushed across the bridge and with difficulty made their way along the heavily timbered shore to the falls. Eagerly they scanned the misty depths of that mighty cataract. Down there, mid eternal roar, waters boiled as if in some great cauldron. Through vast clouds of spray they caught a glimpse of huge dark rocks but nothing more. Looking out beyond as far as the eye could reach, not a speck appeared on those muddy foam crested waters to arouse hope, yet they followed the river for hours in vain. It was not till sundown that they got back to the camp.

Shorty and his two mates had returned, being unable to cross the first creek which, like the river, was swollen with the recent rains. The first party to return from the river were busy giving them the details of that eventful day. The rest were coming in by twos and threes. Among the last to enter the bunkhouse was the youth in the dilapidated Norfolk jacket, riding breeches and leggings.

"Ere's his coat, chaps," he said displaying the foreman's chequered mak-inaw coat. "I found it at the side of the grade." Then he tossed it up across

one of the stringers overhead for safe keeping. As he did so a letter slipping from one of the pockets fluttered down to his feet. He picked it up, then looked at his mates enquiringly. "Say chaps," he said, "I think we ought to read this. It might give some information about his friends or relatives, don't cher know."

"Right you are," answered one, whereat he drew the letter from its blue envelope and read the following aloud:

Camp No. 1, Rupertsland Ry.
21 Oct.

To Peter Legore:

Dear Sir.—I am to inform you that, owing to a slide of the river bank at the Elbow on the Yellow Pine River, the Company's boat will not be able to reach you this fall. I find it impossible to get men to go up the line to you from here. Still you must make that connection before freeze-up.

Our charter calls for the road to be put in operation by the New Year. Yours is the last connection of importance to be made. The smaller ones can be filled in with ties if necessary. Should the freeze-up overtake you we can't do it and the company will lose its grant, comprising millions of dollars worth of timber and agricultural lands along the route. So get all you can out of the men and horses.

Yours truly,
R. J. Robinson,
Superintendent.

The freeze-up had come. Sleigh bells ginged merrily through the frosty air as a large toboggan carrying two men drawn by seven powerful dogs sped northward along the grade of the Rupertsland railway. Soon they came to an unbridged creek where they descend to the creek bottom to cross on the ice. As they do so the dogs prick up their ears. The men sit up and listen. From below they distinctly hear men shouting. As soon as they emerge from a grove of young birch trees they see before them a party of men and teams on the opposite bank of the creek. The leading team of four horses hitched to a loaded wagon is stuck in a snow drift. Some of the men are digging them out while others are clearing a road on ahead.

Both horses and men are a pitiful sight. The former seem on the verge of starvation while the latter exhibit signs of much suffering. For days all had worked hard on reduced rations and now food for both man and beast was exhausted.

"Where's the foreman?" exclaims one of the fur muffled men, getting off the toboggan as he scans the group.

"Ere," cries a short red faced individual.

"You," exclaims the Superintendent of the road. "Why, where's Pete Legore?"

"Drowned in the river," the man answered.

"Drowned," cried the anxious Superintendent. "Then the grade's not finished!"

"Yes she is Governor. Blowed if I didn't throw the last shovelful onto 'er myself."

The incredulous look on the Superintendent's face passed unnoticed. Somewhere yonder in the purple halo that fringed the dark forest above them, Shorty seemed to see the spirit of Black Pete smile approval.

Killing Bed Bugs.

A subscriber wants to know a sure way of killing bed bugs. In answer we may say that a good way to exterminate bed bugs, and one which may be easily applied, is to mix corrosive sublimate with water and apply the solution with a feather to all the crevices or places where the bed bugs are likely to be found. Corrosive sublimate is a deadly poison, and should be handled accordingly.

Forebearance is the oil which lubricates the family life and makes it run smoothly and without jarring.

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That is exactly where we do stand.

We ask you to take no risk. Buy a bag of ROBIN HOOD and give it two fair trials. If it does not prove perfectly satisfactory, so satisfactory that you, too,

say, "It is really the flour that is different," you may take it to your grocer and he will give you back your money.

Will you make the trial on your *next* flour order?

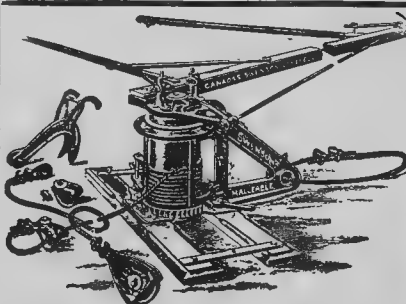
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The Influence of Domestic Science Teaching on Home Life.

Address given at Recent Convention of Manitoba Agricultural Societies by Miss A. B. Juniper, in charge of Proposed Domestic Science Course at Manitoba Agricultural College.

Before making the following remarks, I wish to state that I am fully alive to the fact that there are many beautiful homes in Canada, and many excellent housewives. It is not for these that my remarks are meant, but rather for those who learn by bitter experience, which they are often too proud to let anyone guess. I want the young wives of the future to benefit by all the experience of all the first-class housewives, of many years' standing. A household science centre should be a sort of bureau for collecting and distributing information bearing on the home. I expect to learn quite as much as I may ever hope to teach.

The influence of household science teaching on home life was sent me as a subject on which to prepare a paper for tonight. This text, I take it, was chosen by a man, and it encouraged me, for it seems that people are beginning to realize that the home has not yet been developed as it may be, and that it has not received the earnest attention and study that has been received by any other successful business enterprise.

And immediately one questions "Why?" The answer is not far to seek. The province of home-making has been viewed in a wrong light. Take any helpful worker from the carpenter to the farmer, doctor, or lawyer, each has a varying apprenticeship to serve, a time in which to study his chosen vocation in all its aspects; the practical work and the science which underlies it he has to master. It is only during the last few decades that it has dawned on mankind that home-making, the highest of all woman's vocations, needs careful preparation if the home is to be happy and the nation strong.

Some will say that this is nonsense, that there have been happy homes and healthy people before the subject was even seriously studied. Quite so, but there have been, and are now, many that are not so. People were born, married and flourished years before colleges for the training of physicians were established, but none will deny that there has been less suffering proportionally since their establishment.

As a paper recently put it, "the standards and knowledge among women responsible for homes are deficient, and conditions of home-making are extremely hard." And, sad to relate, it is the women who have been blind to these facts and have considered themselves exempt from the need of training that men conceive necessary for themselves. To this day the less thoughtful among them scorn the idea that any training other than that handed on by their mother is necessary or even desirable.

Let us consider a moment what home-making includes. It embraces a knowledge of cookery, laundry, needlework, what constitutes a healthy, comfortable and beautiful home, and how to keep it so, manual training, hygiene, physiology, household accounts, the care and training of children, home nursing, with physics, chemistry and bacteriology, the sciences which explain these studies, whilst for those in country districts must be added home gardening, poultry, and dairying. And the average girl is supposed to know all these more or less by instinct or at best after a few months with her mother. It is an acknowledged fact that nowadays if one wants to be successful, it is necessary to specialize. Our most famous physicians are those who make the eye, throat or some other organ a special study; the best paid teachers are those who, beside an ordinary degree, possess extra knowledge in some particular group of subjects; even in business it was specializing in oil that made a Rockefeller famous, iron a Carnegie, and so forth.

Three-fourths of the girls of this land are destined to become wives and mothers, and all will probably at some time be engaged in household duties. Are they at present receiving any systematic help or training to fit them for this, the highest and most important

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In the Spring of 1893 I was attacked by muscular and inflammatory rheumatism. I suffered as those who have it know, for over three years, and tried almost everything. Finally I found a remedy that cured me completely and it has not returned. I have given it to a number who were terribly afflicted, and it effected a cure in every case. Anyone desiring to give this precious remedy a trial, I will send it free. Address, Mark H. Jackson, No. 474 James Street, Syracuse, N. Y. Mr. Jackson is responsible. Above statement true.—Pub.

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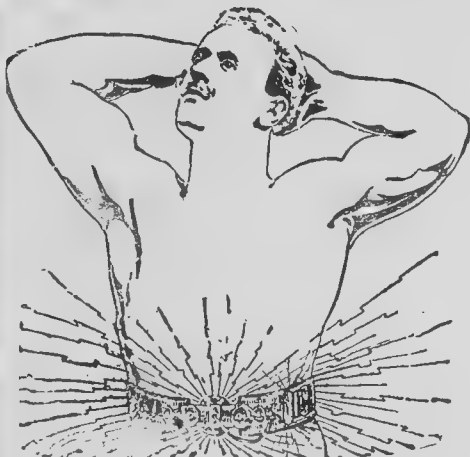
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If you are a man whose youthful vitality has been wasted by indiscretions, excesses or overwork, I want to assure you that there is a positive remedy for your trouble. If your condition is that of exhaustion or feebleness, the very element which you have wasted viz., human electricity, can be put back into your body. When you get it back your weakness will disappear and you will become strong in nerve, brain, muscle, and every organ, and filled with joy that you are once more a perfect specimen of manhood. Dr. McLaughlin's Electric Belt will fill your system with the power you have lost. It does this in a gentle soothing way while you sleep. You get up in the morning refreshed, all aches and pains disappear, and you feel strong enough to attempt and accomplish what any other man can or may. It makes you feel like a new man, because it restores and develops the vigor originally given to men by nature.

Pick out the men who have worn my Belt. See them with head erect, chest expanded, the glow of health in their cheeks courage in their hearts, and a clasp of the hand that tells you "I am the man."

Dr. McLaughlin,

This Man says my Belt is a God-send

Dear Sir:—I regret very much in keeping you waiting for the recommendation you so richly deserve in praise of your Belt. I must say that it is a God-send to anybody in need of it. It will cure anything as regards Physical Weakness, and is far ahead of drugs. Anything I can do in the way of recommending your Belt I will do to the best of my ability. You can refer anybody to me that may be in doubt about your Belt.—Yours truly, THOMAS MURRAY, 14, 8 Gladstone Ave., Winnipeg, Man.

Dr. McLaughlin:

Stomach, Heart, Kidney and Nervous Troubles Cured Permanently.

Dear Sir:—I am pleased to say your Belt has cured me permanently of my different ailments, such as nervousness, heart and kidney troubles, indigestion, sick headaches and other ailments. I have not been troubled with any of them since, nor have felt the effect of them since I stopped wearing my Belt. I always answer all who ask me about the Belt, and there have been several who have written to me. I do this cheerfully and will continue to do so as long as they send me a stamp for reply. Wishing you success in the future,—I remain, yours for health, JAMES ED. JONES, Teulon, Man.

Dr. McLaughlin:

No More Dizziness—Heart Stronger

Dear Sir,—I have used your Belt with great success. It has done just what I expected of it—it has helped me in every way. I am getting stronger all the time. I have gained twenty pounds since I began using your Belt. I think it was money well spent. I have no more dizzy spells; my heart is much stronger and my lungs feel better. I think your Belt has the most healing power of anything that was ever invented. Yours truly, M. W. COOPER, Claresholm, Alta.

Dr. McLaughlin,

Catarrh Cured.

Dear Sir,—It is with much pleasure that I send you this testimonial in praise of your Belt. I have worn it for the last three months, and am about cured. It is all that you say and more. It has done me much good, and I think it is all right. I would recommend it to anyone troubled with Catarrh. I think nothing will take the place of your Belt.—Yours truly, VICTOR DUBORD, 77 Water St., Winnipeg, Man.

The reason so many men neglect to use my Belt is that they fear it will fail like other things they have tried. Now the security I offer to the doubtful man is that he need not pay for my Belt until it does for him what I say it will do, if he will in turn give me reasonable security that he will pay me when cured. Put aside these testimonials. Don't make any difference whether you know that Dr. McLaughlin's Electric Belt cured them or not. Give me reasonable security, I will arrange the Belt and send it to you and you can

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Give me a man who is thin, puny and unnourished in appearance, and I will pour this Electric life into his body every night for three months, with proper exercise to draw it into the muscles and tissues, and I will add twenty-five pounds to his weight, remove every evidence of his weakness, and restore his strength. Look at the men who have worn my Belt and you will see men of force, men of power, and confidence, men who respect themselves and are respected by their fellow men.

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This Suspensory is made for the special ailments of men and assures a cure of a Waste of Strength, Early Decay and Debility. Its current is invigorating and wonderful in power. It develops all weak organs and checks unnatural drains. No case of Failing Vigor, Varicocele or Debility can resist this powerful Electric Suspensory.

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of woman's vocations? In other words, are they specializing in household science?

It may be argued that a mother can teach a child all that she needs to know of these subjects. That may be true, but does the average woman take the trouble to conscientiously teach her children? Is it not more frequently the case that a girl picks up what she can, according to inclination? At an age when she would most profit by her mother's teaching, a girl's whole time is taken up with high school work, and when that is finished she often at once leaves home to earn her own living. Many a mother has not the patience or time to instruct her children; she would rather do the thing herself because as she says "children are so slow and make such a litter; and thus girls may grow up ignorant of this essentially woman's work. Again, it is one thing to know how to do a thing oneself, and quite another to be able to convey that knowledge intelligently to others. A mother, though an excellent housewife, is not always a born teacher, and her own very perfection in the art of cooking for example may prevent her from discerning the simple difficulties that are likely to occur to a girl. There is, too, the possibility that the mother may become ill. Who, then, is to take her place? The average untrained girl does not find it easy at a moment's notice to cook (not cake or candy simply) but good nourishing meals for a family, and, besides, make poultices and tempting dishes for the invalid. Surely, therefore, systematic teaching with the necessary explanations must be a boon to all girls who are fortunate enough to have it.

Cookery is of all domestic science subjects the one that creates most interest. People are apt to speak disparagingly of scientific cookery. Deep scientific cookery may be beyond the brain of an ordinary woman. That is left to men scientists. It is a homely science that is needed in the home kitchen. It is no use imitating the French chemist who spent his time trying to produce milk from grass, failure following for want of the homely intervention of the cow. But a broad knowledge of the theory of cookery will be found not only very interesting, but helpful. Of course there is nothing like practice, but the theory is necessary too. Would you allow a doctor to learn all his theory by practicing as an ignoramus on you as a patient? Yet many young wives do a similar thing in cookery on their husbands. Men who mean to become sculptors have first to acquaint themselves with the bones and muscles of the human frame; otherwise their work would contain many errors. And surely every girl and woman ought to know the five classes of food stuffs necessary to support life and about how much of each is found in everyday dishes. She may not be able to analyze correctly each article of food, but she ought to know the relative proportions of nitrogenous, carbonaceous and fatty food stuffs contained in different foods, and how to cook each in its most easily digested form.

Similarly, housework generally is an application of a number of facts and principles in chemistry, physics, hygiene, bacteriology, and in order to understand ordinary household processes a knowledge of the general principles of these subjects is necessary.

There is no time today to touch upon all these branches, but mention must be made of hygiene, including sanitation. A woman should understand how to choose a house, the good and bad points. She spends most time there, and should know that if possible it should face the south, be protected from the prevailing winds, have a damp proof course, possess a bathroom (in preference even to a parlor), be properly ventilated with plenty of windows made to open at the top as well as the bottom to exit the foul air and admit fresh.

How ignorant of the common laws of health some people grow up, even in the matter of washing! How few realize the necessity for being real clean all over. Apparently they think that it is only face neck and hands that become dirty from day to day, despite the fact that one's clothes testify to the opposite. It is only when they grasp the fact that every pore on each surface inch of skin has a work to do

which is impeded by the accumulation of dirt caused by a day's labor, that uncleanliness, which is only another name for laziness, becomes a thing of the past. An author has said: "Teach a boy and you teach an individual, teach a girl and you teach a household." A doctor writes: "Inculcate the idea that spitting carelessly anywhere is filthy, indecent, and in many cases criminal, that all preventable diseases have a germ, that these germs have their breeding places, that the germ is the disease and the soil the body—and their might be some hope of stamping out the scourge of consumption."

A wider knowledge of all that pertains to health, more light on the chemistry of food, and an intelligent appreciation of what goes on in the pot or oven would show girls the true dignity of household science and the respect that it deserves.

Training in household science makes girls more useful at home. The school or college becomes a practicing ground for them. Having felt what a tiring business it is to cook a dinner, sympathy is fostered for the mother. When they find how easy it is for things to go wrong, it should make them, as they become older, less ready to find fault with food set before them. That is one reason why it would be beneficial to wives and mothers if boys (who sometimes grow to be grumbling men) were taught to cook. On the other hand, the mother herself may gain new ideas from her children.

The majority of girls marry. When married the health, and indirectly the success in life of husband and children, lies largely in the women's hands. Yet how many a one takes this step without proper preparation. Her less fortunate sisters, who have to earn their own living, are obliged, no matter what they take up, to first undergo training. If a merchant commences business without any knowledge of arithmetic or book-keeping, we should exclaim at his folly.

The writer had not been one month in Canada when a young married lady, a total stranger, called with her husband to enquire if she could have lessons, as she knew absolutely nothing of cooking. As her hearers seemed incredulous, her husband mose emphatically and feelingly seconded her avowal. She could paint, play and do fancy work, but not cook. Probably she was an exception. But have you ever noticed how often the first child of a family dies in infancy. Speaking plainly, it is frequently because the parents were experimenting on it—not from want of love, but through ignorance it was not fed and treated sensibly. How much misery might be saved if girls had simple training on the feeding and care of infants.

A recent report of the Director of Recruiting, in the British Army, shows an increasing number of rejections, and especially in those refused on account of defective teeth. The recruits are principally drawn from the artisan classes, whose food is largely composed of white starchy bread. Everyone knows that the bones and teeth are composed of phosphate, and that nearly all these phosphates are removed from wheat with the bran in milling white flour. How can we expect strong physique when the actual substances out of which the body is built are absent from the food? One of the most pressing national needs is a clear knowledge of the absolute relation between sound food and a sound body. Doctors say that half the cases of consumption are due to improper food and lack of ventilation, both matters belong to the kingdom of women. Drunkenness, too, is indirectly caused by badly-kept houses and ill-cooked food. If, therefore, we are to build up a strong and temperate nation, we must train our girls to be good home-makers and efficient mothers.

Sir Lauder Brunton, lecturing recently to physicians, said:—"Cookery is not only a powerful moral agent in regard to individuals, but may be of great service in regenerating a nation."

Mr. James Long, whom I read of lately as the greatest English writer on agricultural questions, in his last book called "The Coming Englishman," published by Smith, Elder & Co., goes farther afield from the agricultural question than usual, though every topic on which he touches is closely

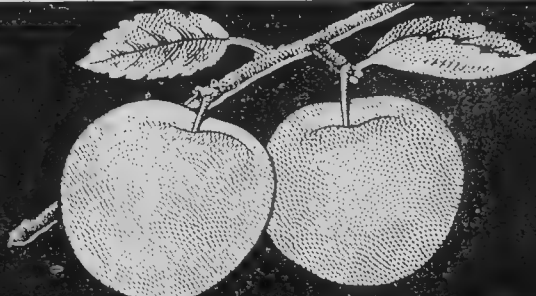
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Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases and makes women well, strong, plump and robust. Just send me your address, and the free ten days' treatment is yours, also the book. Write to-day as you may not see this offer again. Address: **MRS. M. SUMMERS, Box H. 95 WINDSOR, Ont.**

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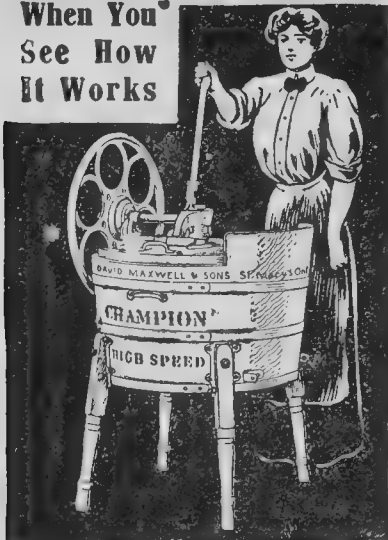
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you will want a "CHAMPION" Washing Machine right off. The Momentum Balance Wheel, which almost runs itself—the up-and-down stroke of the Lever, which means greatest power with less effort—the absolute perfection of the "CHAMPION"—will make you want one for your home.

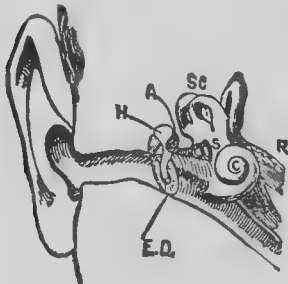
"Favorite" Churn gets all the butter out of the cream. Easy to churn, too. If your dealer does not handle these home necessities, write us.

DAVID MAXWELL & SONS, - ST. MARY'S, ONT.
Western Representative: John A. McEwan,
603 Union Bank Building, Winnipeg.

DEAFNESS AND CATARRH

Successfully treated by "Actina"

Ninety-five per cent. of the cases of deafness brought to our attention are the result of chronic catarrh of the throat and middle ear. The air passages become clogged by catarrhal deposits, stopping the action of the vibratory bones. Until these deposits are removed, relief is impossible.



E. D. The Drum; H. Hammer; A. Anvil; S. Stirrup; S. C. Semi-circular Canals; C. Cochlea.

The inner ear cannot be reached by probing or spraying hence the inability of specialists to always give relief. That there is a scientific treatment for most forms of deafness and catarrh is demonstrated every day by the "Actina" treatment.

The vapor generated in the "Actina" passes through the Eustachian tubes into the middle ear, removing the catarrhal obstructions and loosens up the bones (hammer, anvil and stirrup) in the inner ear, making them respond to the vibration of sound. "Actina" is also very successful in relieving head noises. We have known people afflicted with this distressing trouble for years to be completely relieved in a few weeks by this wonderful invention.

"Actina" has also been very successful in the treatment of la grippe, a-thma, bronchitis, sore throat, weak lungs, colds, headaches and other troubles that are directly or indirectly due to catarrh. Actina will be sent on trial post-paid. Write us about your case. Our advice will be free as well as a valuable book—Prof. Wilson's Treatise on Diseases. Address, Actina Appliance Co., Dept. 101C., 811 Walnut Street, Kansas City, Mo., U.S.A.

CHILDREN TEETHING

Mrs. Winslow's Soothing Syrup has been used for over FIFTY YEARS BY MILLIONS OF MOTHERS for their CHILDREN WHILE TEETHING, with PERFECT SUCCESS. IT SOOTHES THE GUMS, SOFTENS THE GUMS, ALAYS ALL PAIN, CURES WIND COLIC, and is the best remedy for DIARRHOEA. Sold by Druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup" and take no other kind. Twenty-Five cents a bottle.

finished in shirt waist style, and the separate shield is adjusted under the waist and closed at the back.

The quantity of material required for the medium size is 4¼ yards 24 or 27, 3½ yards 32, or 2¼ yards 44 inches wide with 1½ yards of banding.

The pattern 6577 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

Fancy Tucked Blouse 6579.—(To be made with or without the yoke, with long or three-quarter sleeves. 492 embroidery pattern.)—The lingerie blouse that is made with a square yoke is one of the latest developments. This one is embroidered in a simple but effective design and is eminently dainty and charming. It is made of mercerized batiste and it is trimmed with lace insertion but the same model will be found available for all the thinner waistings as handkerchief lawn, marquisette cotton, voile and batiste. If embroidery means too great labor the yoke could be made from some pretty all over material or applied motifs used in its place. Either embroidery or lace banding will make appropriate trimming. The tucks mean just becoming fullness at the front, and long slender lines at the back and the sleeves are trimmed to give a distinctly novel effect. They can be finished as illustrated or cut off above the first group of tucks as liked. If a simpler blouse is wanted the yoke can be omitted and the trimming continued to the neck edge.



6579 Fancy Tucked Yoke Blouse, 32 to 40 bust.

The waist consists of front, backs and yoke. The stock collar completes the neck edge but the sleeves are in one piece each and trimmed on indicated lines.

The quantity of material required for the medium size is 4¼ yards 21 or 24, 2¾ yards 32 or 2 yards 44 inches wide with 8 yards of banding.

The pattern 6579 is cut in sizes for a 32, 34, 36, 38, and 40 inch bust measure, the embroidery pattern 492 one size only.

Girls' Dress 6594.—(To be made with or without the trimming portions.)—Simple little frocks such as this one are always attractive, always desirable. One of the new chambrays is the material illustrated and it is trimmed with white linen but this dress will be found available for all childish materials. It can be utilized for the light weight wools of the present as well as the washable materials of the future. It can be made as illustrated or plainer, with the trimming portions omitted, as liked. One of the inexpensive printed wash fabrics made without trimming would make an exceedingly serviceable frock for every day wear. This one is daintily charming, and the same model made from cashmere or serge with trimming portions of plaid silk would be exceedingly smart for the present and for between-seasons wear.



6594 Girl's Dress, 8 to 14 years.

The dress is made with blouse and skirt. The blouse consists of front and centre-front with the back portions. There are tucks laid over the shoulders and the trimming portions when used are arranged over the centre-front and stitched to position. The skirt is straight and laid in backward-turning plaits. The sleeves are made with upper and under portions. The trimming, when used, is arranged on indicated lines.

The quantity of material required for

the medium size (12 years) is 5½ yards 24 or 27, 4¼ yards 32 or 3¾ yards 44 inches wide with ¾ yard 27 for trimming.

The pattern 6594 is cut in sizes for girls of 8, 10, 12 and 14 years of age.

Misses' Coat 6592.—(To be made with cuffs or plain sleeves.)—Coats of such length as this are among the newest and smartest shown and are exceedingly becoming to young girls. This one is made of serge with the collar of moire velours but the model is adapted to all seasonable materials that are used for coats and for suits. It would be charming for broadcloth and other spring suitings. It is just as well adapted to linen and cotton poplin and it makes a most satisfactory model for pongee. For the collar either the same material trimmed or a contrasting one can be used and the collar can be left plain or it can be embroidered or braided with soutache or rat-tail cord. The sleeves are of the simple coat sort but they can be finished with straight cuffs or left plain as liked. The side-back seams are left open for a portion of their length and such treatment always means an additional effect of jauntiness.



6592 Misses' Coat, 14 and 16 years.

The coat is made with fronts and side-fronts, back and side-backs. The sleeves are in two pieces each. The collar is joined to the neck and it and the blouse are faced and rolled over to form the revers.

The quantity of material required for the sixteen year size is 5 yards 27, 2¾ yards 44 or 2½ yards 52 inches wide with 1½ yards of silk.

The pattern 6592 is cut in sizes for girls of 14 and 16 years of age.

The Marvels of the Human Body.

Regarded from a merely mechanical standpoint the human body is so infinitely complex, so exquisitely responsive, so strangely perfect, that by comparison it dwarfs all other things known to man and stands alone as the wonder of the world. In all mechanics and architecture, in all the machines and inventions of man, there has not been discovered one single device that is not found in the human body. The arch, the lever, the inclined plane; a pump, a grist-mill, a stringed instrument; hinges, pulleys, ball and socket joints—all these and a score of other man-made inventions are merely crude copies of the same devices found in the human body. The lungs through their 6,000,000,000 tiny openings have a surface equal to the floor of a room forty feet square. The body contains 2,000 miles of tubing through which half a barrel of fluid is constantly pouring. The blood travels 168 miles a day. Truly we are "fearfully and wonderfully made."—Dr. W. R. C. Latson, in Syracuse Journal.

Every article of food ought to be kept in a covered dish when not on the table. If this were done, there would be far less sickness than there is, for a good share of our suffering comes from food that has been in contact with the air and the millions of little things that live in it.

If for any reason you have not sprinkled your clothes the night before you wish to iron them, try sprinkling them with boiling hot water. Use a clean whisk broom, as it sprinkles them much finer and even than by dipping the water in your hand. As soon as your clothes are sprinkled and tightly rolled up, put on your irons to heat. By the time they are hot your clothes will be ready to iron as nicely as if they had lain over night. Always iron the linens last, as they require more dampness.

Had Weak Back.

Would Often Lie in Bed For Days, Scarcely Able To Turn Herself.

Mrs. Arch. Schnare, Black Point, N.B., writes:—"For years I was troubled with weak back. Oftentimes I have lain in bed for days, being scarcely able to turn myself, and I have also been a great sufferer while trying to perform my household duties. I had doctors attending me without avail and tried liniments and plasters, but nothing seemed to do me any good. I was about to give up in despair when my husband induced me to try Doan's Kidney Pills, and after using two boxes I am now well and able to do my work. I am positive Doan's Kidney Pills are all that you claim for them, and I would advise all kidney sufferers to give them a fair trial."

DOAN'S KIDNEY PILLS are a purely vegetable medicine, realizing quick, permanent relief, without any after ill effects. A medicine that will absolutely cure Backache and all forms of Kidney and Bladder Disease.

Price, 50 cents per box, or 3 for \$1.25, at all dealers or The T. Milburn Co., Limited, Toronto, Ont.

In ordering specify "Doan's."

ITCHING ERUPTIONS QUICKLY COOLED

Just a few drops of the famous D. D. D. Prescription applied to the skin will take away instantly the worst kind of an itch. We positively know this.

Oil of wintergreen, a mild, soothing liquid, combined with such healing substances as thymol and glycerine, will penetrate to the inner skin, kill the germs, and heal. The D. D. D. Prescription, made at the D. D. D. Laboratories of Chicago, seems to be just the right compound, as thousands of remarkable cures prove.

Don't go on suffering from eczema or any other itching skin disease, when relief is so easily obtained.

Just write the D. D. D. Laboratories, Dept. L, 23 Jordan St., Toronto, and they will send you, free, a trial bottle. This sample will relieve the itching at once, and prove to your satisfaction that here at last is the cure for your torture.

Write for a trial bottle to-day.

For sale by all druggists.

ABSOLUTE SECURITY.

Genuine

Carter's Little Liver Pills.

Must Bear Signature of

Wm. Carter

See Fac-Simile Wrapper Below.

Very small and as easy to take as sugar.

CARTER'S LITTLE LIVER PILLS.

FOR HEADACHE, FOR DIZZINESS, FOR BILIOUSNESS, FOR TORPID LIVER, FOR CONSTIPATION, FOR SALLOW SKIN, FOR THE COMPLEXION

Price 25 Cents. GENUINE MUST HAVE SIGNATURE. Purely Vegetable. *Wm. Carter*

CURE SICK HEADACHE.

From A Woman's Standpoint.

A Department Edited by Margaret Freeston.

I do like to hear from one and another. Each letter seems to strengthen the bond of sympathy that unites us.

For we want our page to become a place where we can talk things over together. What "Homesteader" says is so, isn't it, that the real helpfulness of this page will come from what each one is willing to pass along out of her experience to some other? No one must feel that she hasn't anything to write about. You can write just the letter we want. We are all interested in everyday doings and difficulties, as well as in broader concerns, and whether you write of one or the other it is appreciated. When are you going to do it?

Address letters to Margaret Freeston, care Nor'-West Farmer, Winnipeg.

"Dear Margaret Freeston.—I feel that someone should respond to your invitations for letters, and make the women's column in the Nor'-West Farmer a success and a helpful page, but this can only be done by the co-operation of the women readers. I myself enjoy reading this page very much, and am sure the editor is a sincere and whole-hearted person. So let us help her, and by so doing help ourselves.

"I am a homesteader's wife; have lived on homestead only three years, formerly living in Winnipeg. I can't say that I am altogether in love with homesteading. Still one must make the best of it wherever one is.

"It is certainly wonderful how some women do make the best of their surroundings. For my part I know several homes where, judging from outside appearances, you would wonder how people could live in comfort, but just step inside and another surprise awaits you, just to see what comfort really exists, and to see how tastefully and conveniently everything is arranged. Talk about your accomplishments: what greater accomplishment could anyone wish for than to have the knack as well as the will to do this?

"You ask for opinions on the rest-room question. I think it would be a boon to the women if every town would furnish such, and I have no doubt that if such a place was provided in

every town the business men would find it a boon to their business.

"Would someone please tell me how to make old-fashioned, apple dumplings? —Homesteader."

[I did enjoy your letter. Surely you have got to the heart of the matter when you say that there is no greater accomplishment for a woman than to have the knack of home making, because these two words include so much—the atmosphere which goes to make home really "homey" as well as the supplying of physical wants. And doesn't the mother's part call for such different kinds of knowledge?

Can some one please give the recipe for apple dumplings asked for?

Write again as soon as you like, Homesteader. You will always be welcome.—M.F.]

"Dear Margaret Freeston.—I am glad that you have started a page for the women, and I am sure it will be greatly appreciated, especially by the farmers' wives. Most of them

have lots of work with very little recreation, and this page will be a little help. "Jerry's" letter was very interesting. I, too, have lived "down east," and while the country is perhaps more improved, and nicer buildings and so on, I think there is a far better chance out here for the man of moderate means. Of course it takes courage, and lots of it, to leave the old home, and all the scenes our hearts hold dear, and face a new country and strangers with an empty pocket-book. I feel that I can speak from experience. We came west seven years ago this spring, and now have a homestead within three miles from town. We found, however, that farming didn't pay with nothing to farm with, so gave it up for a time. I like the farm much better than town, but there is lots of hard work on it. I think the farm homes could be greatly improved with the addition of a few plants and flowers. I found that lilacs winter well, and they are such sweet-smelling things. Mine hasn't bloomed yet, though it will be four years old this spring, but the rabbits ate it off the first two winters. After that I knocked the bottom out of a salt barrel and

Why hesitate one minute?

Your commonsense tells you to get the roofing made of Trinidad Lake asphalt. Nature gives it water-proofing qualities that man has never equaled.

Genasco Ready Roofing

is made of Trinidad Lake asphalt. There are no secret materials in it. There's wool-felt for foundation, and mineral surface (on some) for finish. The Trinidad Lake asphalt is the life and backbone. It prevents cracks and breaks; does away with leaks and repairs, and makes Genasco last longer than any other roofing.

Write for the Good Roof Guide Book, and find out more about Genasco; get samples too. Mineral or smooth surface. Look for the trade-mark at your dealer's, and insist on Genasco. A written guarantee—if you want it.

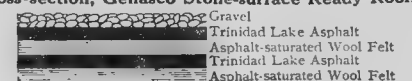
THE BARBER ASPHALT PAVING COMPANY

Largest producers of asphalt, and largest manufacturers of ready roofing in the world.

PHILADELPHIA

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Cross-section, Genasco Stone-surface Ready Roofing



Save the Speculator's Profit

by buying

Fruit Lands

in Southern

British Columbia

from the Nelson and Fort Sheppard and Kalso and Slocan Railway Companies

In answering, please mention this paper

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P.O. Box 1026, NELSON, B.C.

SPRING AND SUMMER

1910 No 119

THE ROBERT SIMPSON COMPANY LIMITED.

TORONTO CANADA

This Catalogue

Now Ready for Mailing

Though Easter comes very early this year, it was decided not to publish this Catalogue until we could illustrate the

Authentic Spring Styles.

We might have guessed at styles, made our Catalogue look just as attractive, and brought it out a month earlier; but we would not have been keeping faith with the thousands of customers who rely on us for authentic information. You will find the latest and best ideas in every garment pictured here, besides hundreds of novelties which our buyers, just returned from Europe, brought with them. A comparison of our prices with those found in any other catalogue will prove to you that it costs no more to be "in style," nor to supply yourself with this season's novelties, which are not obtainable at the shop near by. Your address on a post card will bring you this Catalogue free of charge.

THE ROBERT **SIMPSON** COMPANY LIMITED
TORONTO

put right over it. I planted some peony roots last spring, but can't say yet how they will stand the winter. Nasturtians do fine; I had an abundance last summer, and sweet peas, too. Sweet Williams do well, and are very pretty. I don't know whether anyone has been successful with roses here. If they have, I would be glad to know, and how they managed them to stand the winters.—Ex-homesteader."

[Glad you like the page, and hope it will become a real recreation place for busy women. You are right about this being the country for the man of moderate means. I was so pleased you told us about your flowers, because just now so many of us are looking for help to plan our garden for this summer. Write again. I wish others would tell about their flowers, and plans for the garden. Who has tried roses, and with what success?—M.F.]

"The laughter of a child will make the holiest day more sacred still. The laugh that fills the eyes with light and every heart with joy.

Laughter "O rippling river of laughter! thou art the blessed boundary line between the beasts and men, and every wayward wave of thine doth drown some fretful friend of care.

"O Laughter, rose-lipped daughter of Joy! there are dimples enough in thy cheeks to catch and hold and glorify all the tears of grief."—R. G. Ingersoll.

The real dignity, the real sacredness of such duties as fall to the share of the wife, the mother, the sister or the daughter in a home

Household Science where there is always plenty of work to do, is only beginning to be appreciated. Just as it is true that the farmer is realizing to a greater extent than ever before the scientific possibilities of farming, and the necessity for study all his life in the school of his chosen work, so it is true that we as home-workers, and the men as interested participants in the results, are realizing to a greater extent the scientific side of our work.

In the past there have been splendid teachers, splendid professors, but do we teach our children today only the things they taught? Do we not also teach the added knowledge of recent years? In the past there have been splendid housewives, splendid mothers, but is there any reason why we should refuse to add our knowledge to their knowledge, and try for still further progress along the lines of making our work easier and more pleasant? We are not belittling the home makers of the past by saying that the home makers of the future should, wherever possible, learn the science of their work, and not be expected to do the great things required of them after a more or less haphazard training, or by just picking up such information as they can. What a number of girls there are, too, boarding in our cities who have no chance of learning good housekeeping, but one day hope to "keep house."

As generation by generation civilization progresses, there seems to be more needs in the home, and a greater variety of them. While the training our ancestors received was good for its time, the wives and daughters of today are seeking a more scientific knowledge with which to handle their problems.

As an outcome of the wishes of progressive farmers, a few years ago the Manitoba Agricultural College was established, where the scientific questions underlying their work could be discussed and studied. It was thought that the accommodation then provided would be ample for many years to come, but already the College has outgrown its original quarters.

The same spirit animating the women of the Western Provinces has led to the establishment of a household science course at the college, and the directors have been fortunate in securing the services of Miss A. B. Juniper to take charge of this work. One more capable for the position it would have been hard for them to find. Miss Juniper recently visited Winnipeg to confer with the college board regarding the work she is shortly to commence. When she came our knowledge of her

was of one highly recommended, who held diplomas and certificates, and with years of experience in her particular line. When she left we thought of her as a friend, and with gratitude that she was to have a part in the making of our West.

The course commences on May 1st next, and will last for from twelve to fifteen weeks, the exact time not yet having been definitely announced. It will include such subjects as cooking, laundry work, sewing, home management, which includes cleaning, household accounts, etc., hygiene and English. The fee will be \$5.00 for the course. Estimating the cost of board and room at the college to be \$4.00 per week for, at the outside, fifteen weeks, \$60.00, and adding say \$25.00 for pocket money, and the additional amount which may be necessary for railroad fare, it will be seen at how reasonable a cost this training can be enjoyed. It is expected, too, that the girls can make arrangements to do their own laundry work.

The advantages are numerous. Girls from town and country and city will be in attendance. Quite outside of their studies they will exchange ideas, experiences and help. At the conclusion of the time home work will not only have a new interest and be easier, but have a new dignity; they, too, have had a training. We believe a term at the Agricultural College helps our boys to be more scientific farmers; also helps them to be content to stay on the farm with us, and not seek the cities or towns. It is equally true that a domestic science training will make housework more interesting, and to some extent relieve the drudgery. Thus will our daughters, too, be more ready to stay at home.

A great many cannot think of taking this training themselves, either through lack of time or lack of money. We can, however, all talk of the scheme to those we meet, and give it our support in that way until the results of the first term or two can speak for themselves.

In another part of the paper is given the address Miss Juniper delivered at the Agricultural College, February 16th. Anyone desiring further information about the course should write to the college; or if you would like to discuss the project further, or touch upon it in any respect, I shall be very glad indeed if you will write me, care Nor'-West Farmer.

At the Canadian Manufacturers' Association banquet held in Winnipeg on February 3rd, Mr. D. W. McCuaig, during his speech, responding to the toast "The Past Month. Producer," said he could not pass without praising the pioneer woman. He believed that the success of the early settler could not have been achieved without the help of his wife. He mentioned the case of a farmer who came out in the early seventies, and became so discouraged after a short time that he

was of one highly recommended, who held diplomas and certificates, and with years of experience in her particular line. When she left we thought of her as a friend, and with gratitude that she was to have a part in the making of our West.



Ogilvie's Royal Household Flour

FOR BREAD . . . FOR PASTRY

ALWAYS GIVES SATISFACTION

WHAT MORE COULD YOU WISH FOR?

U3

LOCAL TREATMENT FOR WOMEN'S DISORDERS



The health we enjoy depends very largely upon how the blood circulates in our bodies; in other words, if we have perfect circulation we will have perfect health.

There is a constant wearing out of the tissues in every part of the body. The blood flowing through the veins carries off this waste or dead matter, while the blood coming from the heart through the arteries brings the fresh new living tissue, the essence of the food we have digested, to replace what has been carried off. This constant wearing out and expelling of the dead matter and the replacing of it with new matter, atom by atom, goes on day and night, until in about 7 years a complete change has been effected. Thus every man and woman has an entirely different body in every particle of it from what he or she had 7 years before.

It sometimes happens, however, from a variety of causes, that the blood becomes congested in certain portions of the body. This means that the blood vessels in these parts become weakened, and the circulation in that section of the body becomes sluggish and stagnant. The consequence is that the dead matter in that part of the body is only partially carried away, and that but little of the new, vital matter is introduced there to build up and strengthen the tissues and nerves.

This condition invariably exists in all cases of female disorders. The dead matter retained in the circulation, which should have been expelled, causes irritation and inflammation of the delicate membrane, and oppresses the nerve centres. This condition is the cause of the grievous physical and mental suffering which accompanies female troubles.

To obtain relief it is evident that the first thing to be done is to get rid of the dead matter which is being held in the circulation. If this dead matter is allowed to remain there a species of blood poisoning will result and nature will endeavor to get rid of it by forming ulcers, tumors, etc.

The above explanation will also show why ORANGE LILY is so successful in curing this condition. It is a local treatment, and is applied direct to the affected organs. Its curative elements are absorbed into the congested tissue, and from the very start the dead matter begins to be discharged. A feeling of immense relief, both mental and physical, accompanies it, and the improvement is constant and positive. This feature of the expelling of the dead matter is always present to a greater or less extent, and in some cases it is so marked as to be amazing. The case described in the following letter is not exceptional:

Dr. Cooney—I am thankful to Mrs. F. E. Currah, your Canadian representative, for my health restored by your wonderful remedy. I have suffered for 17 years, but not so bad until 3 years ago. Then I had a doctor, who told me I had a tumor, and could live no more than a year. If I went through an operation I would not live through it. A year later I sent for him again, and he gave me up to die. My husband then sent for another doctor, who performed an operation, and it did me much good. I doctored with him 3 or 4 months, but became so bad again that I thought I could live no longer, and I began to long to die. One day my husband came home and threw a slip of paper to me with Mrs. Currah's address and told me a lady had advised him to write to her for a treatment that would cure me. I said it was too late, that I would die anyway. I could not lift a teacup without hurting me. Then the first doctor told me I was worse than ever. However, my husband sent for ORANGE LILY, and the third treatment brought away one tumor. Others followed, until 7 tumors had been expelled, 3 large ones and 4 small ones. I know if it had not been for ORANGE LILY I would have died, for I could not live much longer. I would have thought it cheap at one hundred dollars for a month's treatment, instead of one dollar. It is worth its weight in gold.—MRS. GEO. LEWIS, Huntsville, Ont.

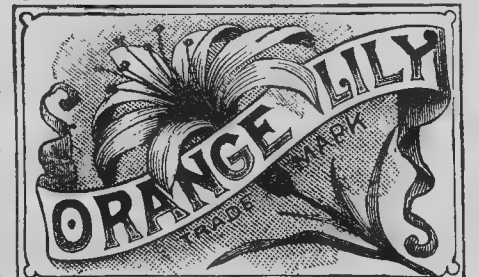
The above letter is published with Mrs. Lewis' permission. All letters received are treated as being sacredly confidential, but occasionally some patient feels so grateful for being cured that she is willing to make the matter known for the benefit and encouragement of her suffering sisters.

ORANGE LILY is a positive, scientific remedy for all disorders of the female functions. As explained above these troubles are of local origin, and require local treatment. It is just as sensible to take medicine internally for female troubles as it would be to take medicine internally for a bruise, a boil or an ulcerated tooth. In all these cases some dead matter is being retained, and the cure is effected by employing local methods for expelling the dead matter. ORANGE LILY has antiseptic, soothing and healing properties, and also tones up and invigorates blood vessels and nerves. I am so anxious that every suffering woman may satisfy herself, without cost to her, that ORANGE LILY will cure her, that I hereby make the following

FREE TRIAL OFFER

I will send, without charge, to every reader of this notice who suffers in any way from any of the troubles peculiar to women, if she will send me her address, enough of the ORANGE LILY treatment to last her ten days. In many cases this trial treatment is all that is necessary to effect a complete cure, and in every instance it will give very noticeable relief. If you are a sufferer, you owe it to yourself, to your family and to your friends to take advantage of this offer and get cured in the privacy of your home, without doctors' bills or expense of any kind. Address MRS. FRANCES E. CURRAH, Windsor, Ont.

Orange Lily is recommended and sold in Winnipeg by The T. Eaton Co., Ltd.



was very nearly hitching up his oxen to the wagon and returning to Ontario. His wife, however, said that she was in the West to stay. The result was that John stayed too, and his little shanty soon became a frame house, and after a few more years a handsome brick one.

At a largely attended meeting of the Local Branch of the Women's Council, held on February 5th in the Y.W.C.A. Building, Winnipeg, a paper was read and a discussion followed on the question of a dower for women. A committee was appointed to interview the member of the local legislature and if possible secure his co-operation to bring in a dower law during this session, the committee to report to the Council as soon as possible.

It is proposed that in the near future other subjects of immediate interest will be discussed, and at these meetings not only members of the Council but all women interested in present day issues are welcome. Three of the subjects mentioned for early attention are, registration of nurses, the need of an Art gallery, and homesteads for women.

Principal Black, of the Manitoba Agricultural College, on February 14th, at the annual convention of agricultural societies, held in the College building, spoke of the work that these societies might do. After touching upon such matters as the extension of seed fairs, agricultural institute meetings, good roads, more tree planting, etc., he urged the societies to provide rest rooms to be open for the use of farmers and their wives one or two days a week, mentioning especially what Grenfell had accomplished along this line. He enlarged upon what a boon such rooms would be, particularly to the women and the children.

I don't know the author of these lines, though they have long been familiar. Can anyone tell me the name of the writer?

Beautiful faces are those that wear—
It matters little of dark or fair.—
Whole-souled honesty printed there.

Beautiful eyes are those that show
Like crystal panes where hearth-fires
glow,
Beautiful thoughts that burn below.

Beautiful lips are those whose words
Leap from the heart like songs of birds,
Yet whose utterance prudence girds.

Beautiful hands are those that do
Work that is earnest and brave and
true,
Moment by moment, the long day
through.

Beautiful feet are those that go
On kindly ministry to and fro,
Down lowliest ways if God wills so.

Beautiful shoulders are those that bear
Ceaseless burdens of homely care,
With patient grace and daily prayer.

Beautiful lives are those that bless—
Silent rivers of happiness,
Whose hidden fountains but few may
guess.

Beautiful twilight at set of sun,
Beautiful goal with race well run,
Beautiful rest with work well done.

Beautiful grave where grasses creep,
Where brown leaves fall, where drifts
lie deep,
Over worn-out hands—Oh, beautiful
sleep!

Tutti-Frutti Apples.—Select large, sound apples without defects. Take out the cores. Arrange the apples in a stoneware baking dish. Five or seven usually fill the average size. Stuff the opening of the cores with seeded raisins, currants, bits of citron and chopped nuts. Lastly put a small lump of butter and some brown sugar on the top. Bake half an hour until apples are tender. The raisins impart a delicious flavor to the apples. Serve with the juicy syrup.

Potato Soup.—One pint milk, one cup mashed potatoes, put through a sieve. One teaspoon salt, one tablespoon butter, one stick of celery or one-third teaspoon celery salt, dash of cayenne pepper, one tablespoon flour, one teaspoon parsley, one small onion. Let milk, onion and celery stalk come to a boil, add seasoning and thickening and

lastly add potato and parsley. Before serving remove onion and celery stalk, and serve very hot.

Proper care for the Sewing Machine.—About once a month oil the machine thoroughly with kerosene oil at the treadle wheels and every joint. Remove the sewing cotton and run the machine quickly for two or three minutes, then wipe off all oil and dust. Next, oil just as thoroughly with the best machine oil, and again wipe well to remove excess of oil. It is a good plan to place a piece of absorbent cotton around the needle bar, so that oil will not run down needle to sewing. A very few drops of oil should be used each day if the machine has constant usage.

To Clean Furs.—Bran of rye is heated in an iron or earthenware vessel, stirring all the time, until it has become as hot as the hands can stand. The bran is then rubbed thoroughly into the furs. Then brush the fur with a clean brush until all the bran has been removed. The fur has back its former lustre.

The Baby's Name.

In the olden times among the Jews the name given to a child originated in some circumstance of birth or was an expression of religious sentiment. The early Greeks gave their children but one name. It was given by the father the tenth day after birth, and it was his right to alter it if he so wished. The Greek names generally were expressive of some high quality, such as valor, skill, wisdom or gracefulness.

The Puritans admitted but those directly expressive of religious sentiment and those which occurred in the Scriptures.

The poor little Chinese girls are thought of so little importance that they rarely get a name at all as infants, but are called No. 1, 2, 3 or whatever their place in the list of daughters may be.

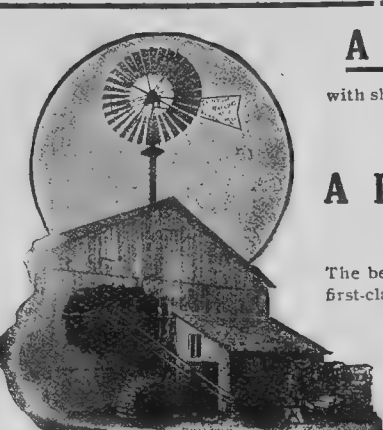
Chinese boys are given a name by which they are called till they attain the age of twenty; then their father gives them a new name.

Japanese girls have pretty names, usually those of some flower, "Mimosa," "Chrysanthemum," "Cherry Blossom," and in some parts of the country the little Japs do not receive a name till they are five years old, when their father chooses one for them.

The Egyptians have an odd way of choosing a baby's name. They light three candles, giving a name to each, but they always call one after some dignified or exalted person. The baby is called by the name borne by the candle which burns longest.

A "tumbler garden" is pretty to look at these wintry days. Fill the glass with water and lay carefully on top of it a circle cut just to fit from cotton batting. Scatter on this seeds of grass, flax or parsley and set away in the dark. In a few days the seeds will start, the roots penetrating the cotton and sending their delicate fibres to the bottom, while the top will be covered with a thicket of green. Then keep in a warm place, occasionally adding water carefully.

A multitude of women are nervous and careworn because they deprive themselves of the pure air that would make pure blood, and of the freedom of motion that would send the blood bounding through the veins, giving life, health and energy. Many women have become confirmed invalids when they might have enjoyed health had they observed the ordinary hygienic principles, and exercised freely in the open air. Every article of dress should fit easily, obstructing neither the circulation of the blood nor a free, full, natural respiration. Everything worn should be so loose that when the arms are raised the clothing will also be lifted. Women who are in failing health can do much for themselves by sensible dressing and exercise.



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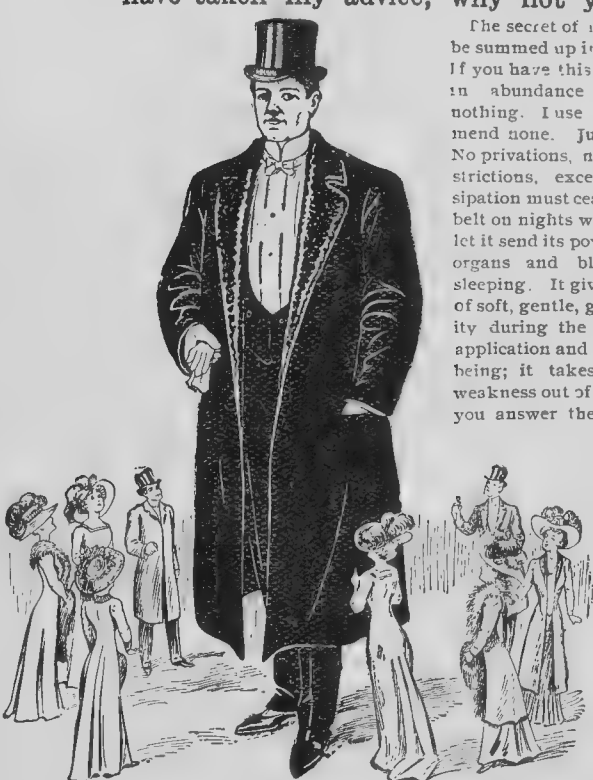
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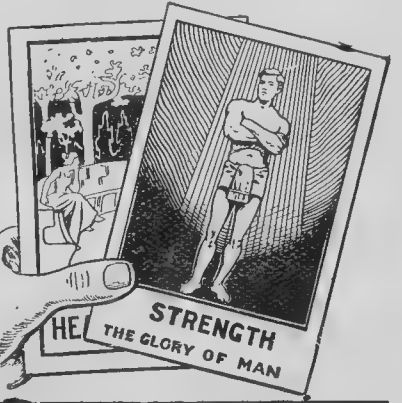
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DEVELOPER DAM AT WINNIPEG

FOR THE BOYS AND GIRLS.

Every boy or girl who reads this Department may become enrolled as a member of the Young Beavers' Club. The membership badge is a beautiful button, of the design shown within the circle above. These buttons are sent free to all members. To become a member one needs only to write a letter for publication in this Department of our paper and make application to be enrolled. The list of members is carefully kept in our big membership book, and we publish what we consider to be the most interesting letters.

All letters should be addressed to the Young Beavers' Club, Nor'-West Farmer Office, Winnipeg. Do not enclose any business communication in the same envelope.

Take Time.

How smooth the sea-beach pebbles are!
But—do you know?
The ocean worked a hundred years
To make them so?
And I once saw a little girl
Sit down and cry
Because she could not cure a fault
With one small "try."

Life on a Homestead.

Souris, Man., Feb. 12, 1910.
Dear Editor.—Last winter I lived with my parents on a homestead, forty-five miles from North Battleford. While up there I had letters of sympathy from my friends who were sorry for me because I had to live in a lonely wilderness, as they imagined. But their sympathy was wasted, for I never enjoyed myself more in my life than while on the homestead.

In the summer I enjoyed long tours of exploration through the woods—picnics, hunting with my father, and bathing in a creek. I remember that the last time I bathed in that creek there was a thin layer of ice on the water. Bir—r! that was cold. After running most of the way home I and my companion were quite warm.

In the winter we tramped miles on the frozen creek. Oh! those were scrumptious walks. We skated on the lake and coasted on its banks.

But, best of all, we slept in tents. In my tent there was a small heater in which we lit a fire about five o'clock p.m., so that the tent would be sufficiently warmed by bedtime.

I must tell you of an exciting misfortune which happened to two other girls and myself while sleeping in the tent. One night it snowed, and as the roof of the tent had sunk in, the snow melted through onto us. That was the longest night of my life. I patiently prayed for morning. It was so pleasant to wake up in the mornings with the coverlet all hoar frost and icicles hanging from the ceiling, while the woodpeckers, chickadees, squirrels, etc., were making a great noise barking, twittering and pecking.

The trees were nearly always covered with hoar frost, and when the sunset shown on them, making them appear pink, it was magnificent. Now, who else except a true Scotch girl would enjoy that? Yours sincerely, Netta Clunas.

Many Topics.

Reston, Man., Feb. 17, 1910.
Dear Editor.—My father went to England last year, and when he came back he brought me a box kite. It was like two oblong boxes, each covered with red cotton, and joined together by four wooden spars. As it was the first one of that kind seen around here, it was mistaken by some for a new kind of flying-machine.

Reston had its second agricultural fair last year. I had planted some potatoes early in the spring, and they took first prize when shown at the fair.

I am twelve years of age, and am studying for the entrance.

Our house is only about 100 yards from the railway track. In the autumn we have to keep a sharp watch on the trains. Two trains pass each day, and when the grass is dry there is great danger of a fire starting. There are about a dozen fires each fall on our farm.

We are expecting to have the 'phone installed in the house soon. Most of our neighbors have it, but we did not give our order as soon as they did.

Some Experimental Farm wheat, sown on backsetting, yielded 38½ bushels to the acre. Our own wheat, sown on the rest of the same land, yielded only 21 bushels to the acre. Does this not clearly show that it pays to buy the very best seed possible?

I like stooking the grain. One night my brother and I stayed out stooking till a quarter past nine o'clock, and it was quite dark when we got home.

I hope all the young beavers will work hard to make our club interesting and also useful. Its name ought to be made appropriate by us. We ought to work hard, be honest, and live well, as it says on the button. Your sincere friend, Arnold Wilkins (Aged 12).

Has Her Flower Garden Planned.

Bender, Sask., Feb. 21, 1910.
Dear Editor:—Here I come to join the Beavers' Club. I like the button the best of any I have ever seen.

I have my flower garden planned. Last year I had lovely sweet peas, but not a great many, for when they were about a foot tall the hail came and cut them off. My pansies, asters, mignonette, nasturtiums, petunias and pinks were all destroyed. I hope to have better success next time.

I am starting to take music lessons now. Like it fine. Can play a little already.

Pa says he would not be without The Nor'-West Farmer.

I have read many books. I got "Barriers Burned Away" and "Jane Eyre" at Christmas; in fact, I got two books called "Jane Eyre." Have read both of them and like them. But I have never read "Uncle Tom's Cabin" or the "Mill on the Floss."

I live on the farm between the C. N. R. and the C. P. R. Have only a small distance to go for the mail. We are six miles from Kipling, the divisional point on the C. N. R.

I have a pony called Sandy Owen. We called him that because he came from Owen Sound, Ont. He is a pure black. You can ride or drive him. He is as fat as he can be, and is a little wild.

Well I will close, wishing all the readers and editor every good wish I can wish you. Yours truly, "Sweet Marie."

Plenty of Flowers and Fruit.

Rock Dell, Sask., Jan. 29, 1910.
Dear Editor:—I wrote once before to The Nor'-West Farmer but failed to see my letter in print. I guess it went in the wastepaper basket, so am trying my luck again, as the old saying is: if at first you don't succeed, try, try again.

My father has taken The Nor'-West Farmer for eleven years. We all like it well.

I feed and water the poultry: give them boiled potatoes and also burned bones. We have about fifty chickens and some turkeys, ducks and geese this winter.

We have a telephone in our house and can talk to any of our neighbors.

We live on a farm fourteen miles north of Birmingham, which is our nearest town. It is not very large yet, as it is only about a year old. Like most other towns along the Grand Trunk Pacific running east and west.

We do most of our trading at Yorkton, which is 22 miles east of us, but have hauled all our grain to Birmingham this winter. I was born in Minnesota. When I was about a year old I came to Canada. We have been up here eleven years and we all like it fine.

I am a lover of flowers, and we had a beautiful flower garden the last two years. There are a nice lot of wild flowers here in the summer; the roses

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Steel Shoes solve the problem of the Perfect Work Shoe for all times to come.

The soles of Steel Shoes and an inch above the soles are stamped out of a special light, thin, rust-resisting steel. One piece of seamless steel from toe to heel. As a further protection from wear, and a means of giving a firm foothold, the bottoms are studded with adjustable steel rivets.

The adjustable steel rivets of the 1910 model Steel Shoes add the finishing touch of perfection. Practically all the wear comes on these steel rivets. When steel rivets wear down you can instantly replace them with new rivets. And the rivets at the tip of toe and ball of foot are the only ones that wear. Steel Shoes never go to the Repair Shop, for there's nothing to wear but the rivets. And the Steel Soles shed mud almost as easily as they shed water. The cost is only 30 cents for 50 extra steel rivets. No other repairs are ever needed.

The uppers are made of the very best quality of pliable waterproof leather, and firmly riveted to soles. There is greater strength and longer service and more foot comfort in Steel Shoes than in any other working shoes in existence. It's in the steel and the pliable leather and the way they are put together.

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Wear Steel Shoes and you need not suffer from Colds, Rheumatism, Neuralgia, Lumbago, Stiffness of the Joints and other troubles and discomforts caused by cold, wet feet. Keep your feet always warm, dry and comfortable in Steel Shoes. They protect your health and save doctor bills, while adding to your comfort.

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are very pretty. There are a lot of raspberries here. We have canned as much as 250 quarts in a summer. They were not quite so plentiful last year. We also have, quite a lot of strawberries, saskatoons, gooseberries, currants and other kinds of fruits. We have a large garden of tame strawberries. Had to throw away a lot of plants last year. We also have tame black caps. Yours truly, Mary Griffith.

Lives in the Ranching Country.

Crane Lake, Sask.

Dear Editor:—I am 11 years old. I went to school for ten months and I couldn't go any more. I live in the country, and I like it better than the town. My father owns about 80 head of horses and about 300 head of cattle. Ranching is just about done here. There are quite a few farmers coming in. I shot fifteen ducks and one goose for the first time last year. We have some trees here about eight feet tall which were planted about four years ago. They were seven inches high then. My father poisoned 30 coyotes this winter. I only saw one antelope this year. Wishing the Editor every success, I remain, yours truly, Frank L. Nicol.

Hens are Regular Egg Machines.

Kemnay, Man., Feb. 22, 1910.

Dear Editor:—I live two and a half miles from Kemnay. My two sisters and I go there to school. I am nearly ten years old. We have missed only one day this winter. We are driven in the winter and walk most of the summer.

There are a number of railroads here. Kemnay is a junction of the Souris branch of the C. P. R. and the C. N. R. main lines. About five miles east is the Great Northern. The Brandon and Regina branch of the C. N. R. runs through our farm, there being a siding close by called Vilette. We have a telephone and can talk to Brandon and all its branch lines.

Our hens started to lay about the 20th of January. They have laid over thirty dozen of eggs now. Eggs have been fifty cents a dozen in Brandon.

My father has a gasoline threshing outfit, which is getting to be a great help to the farmers of this country. Best wishes to the Club. M. Rosilla Pollock.

Christmas Vacation.

Canora, Sask.

Dear Editor:—I hope you and all the readers of this valuable paper had a very enjoyable Christmas. I had a very good time. Santa did not forget me and I hope he did not forget you and the readers of this paper. I will describe my week's vacation.

Miss Macdonald, our teacher, had a programme on the last day of school. It was a great success. The trustees and ratepayers were invited. The teacher boards at our place and the night before the entertainment we made candy. Our school is not very large but we did our best. There were eighteen numbers on the programme. There were two dialogues. One was for three girls and the other was for two boys. There were two concert recitations which were for five children, also two acting songs. One was with 5 girls and we all had our dolls. It was a sort of doll drill. My seatmate and I sang a song entitled "Grandmas." We were dressed as old women. We had long skirts on and spectacles. In one verse we had to knit. Besides these I have mentioned there were readings and recitations. We had half the numbers on the programme and then had the candy. My seatmate and I served it. After we had eaten candy and chatted a while we had the rest of the programme. When it was all over we started for home amid the happy shouts of "Merry Christmas and Happy New Year."

The following day, which was Friday, we took our teacher to town to meet the train as she went to Prince Albert where her brother is. A neighbor and his wife went with us; altogether there were seven in the sleigh. We had to be in to meet the morning

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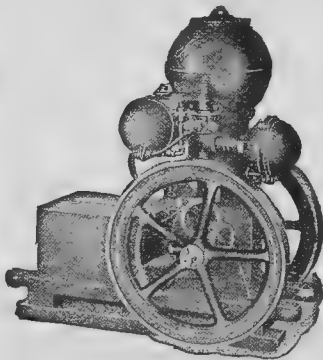
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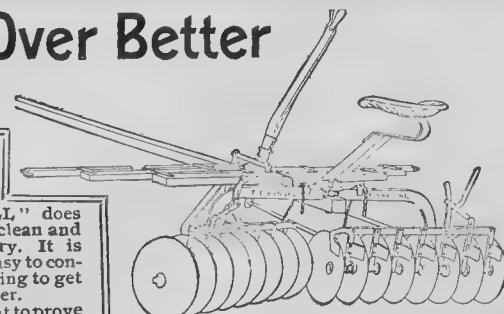
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train, so we had to go very early. We spent the day in town and about four o'clock they all started for home except me. I stayed in town with a friend for there was going to be a Xmas tree in the Methodist Church on Xmas Eve and I wanted to go to it. Santa visited me there as well as at home.

One Xmas morning I was driven home where I found a generous quantity of presents which Santa had left waiting me. The rest of the week I spent at home and going visiting.

I would be very much pleased to hear from any girl who wishes to send a postal card or wishes to send a letter, and will return all favors. Yours truly, Amy Gladys Troyer, Poplar Nook Farm, Canora, Sask. (Age 12.)

Sixty Miles from a Town.

Meyronne, Sask.

Dear Editor.—I am a little girl, 11 years old and came from Oklahoma to Canada, one year ago. We have been taking the Nor'-West Farmer ever since we have been here, and think it is a very interesting paper. We live on a farm 60 miles south of Swift Current and 11 miles from Meyronne, which is just a post office and a country store. We have a section of land down here and I have a brother that has a quarter section of land one half mile from us. We like it here very much. I am going to plant out a nice flower garden as I am a lover of flowers and books. We have no school here yet as the country is too thinly settled but I hope we soon will have for I like to go to school. I am in the fourth grade and study my books in the winter. We have a pretty cold winter, or it seems cold to me. They have had very little snow in Oklahoma this winter. We are talking of getting a steam plow, and farming on a big scale. Your reader, and member of the Beaver Club, Audra Lincoln.

Just a Few Words.

Waldheim, Sask.

Dear Young Beavers.—As you have given a new name to the Club I will join it, and hope that it will receive a great many members. Myself, brother and two sisters, four neighbor's children drive four miles to school. After a big snow storm the road was blocked up with drifts and we had difficulty in crossing them for fear of toppling over onto the fence which was close to the road from the drifts. The drifts were so hard in places that the horses did not sink.

I wish the hunting season would soon come again. How happy I would be to start out at 7 o'clock in the morning, and go to the wheat stacks and wait for the geese to come and settle to feed near. Then as soon as they had settled, I'd take aim and fire among the thickest of them. And then as soon as the rest had flown away, filled with fright, I'd get my game and go home for breakfast. Yours truly, Jacob T. Janzen.

Draws Snow for His Mother

Cecil, Sask.

Dear Editor.—I am only a school boy. Sometimes I ride my pony to school and at other times I go with my father when he goes for wood across the river. On Saturdays I hitch the same pony that I ride to school to a little sleigh that my father made and draw enough snow up to the house for mother to melt and wash with that week. Then she doesn't have to go out and bring it in by boiler fulls.

I had poor luck trapping rabbits this winter but made pretty well on what I did get. On Christmas Eve father poisoned a wolf and there have been none around since that night. Willie Plaxton, (age 9).

No Paper Like the Nor'-West Farmer.

Govan, Sask.

Dear Editor.—Would you please enroll me as a member of your club? I belong to three other clubs and hope to belong to this one soon and get a button, for a boy and girl who live just half a mile from here have them and they are very pretty. My father has taken your great valuable paper

for sixteen or seventeen years and thinks there is no paper that can be compared with it.

I like to read books and I will get quite a few books pretty soon, but have not read all that we have yet for we have a book-case almost full.

We have quite a few cattle, six cows milking. Altogether we have twenty-six head of cattle and thirteen horses. The horse we have, called Dick, will pick up a pail or hoop and put it on his head and run around after the others and scare them. And one called Pete will not let any of the rest come near him, only his mate.

I wish the Editor and Beavers the best of luck. Eleanor Arnott.

Little Gleanings from other Letters.

Hazel Bottoms, Whitewood, Sask.—There is a pretty valley about ten miles from our place. It is called the Pipestone. The south bank of the Pipestone Valley is heavily wooded. The north bank has no timber on it and very little grass. The valley between the hills is about a mile wide. There is a pretty little stream running through it. We saw a beaver in the creek, but I don't think it was one of the members of this club.

Pearl Black, Arnaud, Man.—I have a little pup. I call him Rex. He is black with a white ring around his neck. I also have one pet cat. She is a good mouser. In the summer she used to catch young rabbits nearly as big as herself.

Frank Feeley, Grandora, Sask.—I would like to exchange post cards with any of the members. How many members of the Club have ever seen guinea fowls? I have two.

Murdoch Burton, Carman, Man.—Our town is very beautiful in summer. It is thickly planted with maple trees. We have several pretty parks and groves near town. I would be very much pleased to exchange post cards with other members if they will please write first.

Ellen Carlson, Glen Adelaide, Sask.—I ride to school every morning on a white pony called Ruby. I have two cows and one of them had twin calves. I also have a little pup which I call Kate. My sister and I knitted twenty-three pairs of mitts during the winter holidays. We have two young wolf-hounds called Bruno and Clip, and they are very fond of fighting.

Charles Lee, Crandall, Man.—My brother is in company with me, and we have some ducks and pigeons.

Clifford Beddome, Minnedosa, Man.—My uncle gave me a pure bred wolf hound, and this winter I got a tobaggan, and I broke him in to pull me on it. He is only a pup yet. I bought the tobaggan with the money that I got for muskrats this winter. Some bad man passing my den took two of my traps on Monday.

Garnet Theakston, Griffin, Sask.—We are having fine weather here. There have only been two bad storms here this winter. In the first storm two boys were lost. They went after water about sixty rods from the house with two barrels and the stoneboat and while they were gone a blizzard blew up and they got lost. When they were found they were lying beside a large stone, dead and covered with snow and the horse standing near. I had my hand hurt this winter with a shotgun, which nearly laid me up, and about crippled my right hand.

Herbert J. Fletcher, Melita, Man.—One of our horses will raise his foot when he is asked to and shake hands. He also nods his head when you say good-bye. We have two black dogs called Rover and Mike and we make great pets of them. My favorite winter sport is skating and as we have had a new rink built in Melita I take advantage of it whenever I get the chance.

Amherst Shoes Have Watertight Seams

Shoes less carefully made than Amherst Shoes are liable to let the water soak through at the seams.



In Amherst shoes, we use either two rows of strong, well waxed thread or a double row of hardash with one row of waxed thread as well.

The holes through which the short, serviceable stitches run are barely large enough to accommodate the thread. There is no opportunity for the water to get in through the seams. Amherst shoes keep out water and moisture. They are the kind to wear if you want to keep your feet dry and comfortable in rainy or slushy weather.

Another point, where Amherst shoes excel, is in the Heel Stiffeners. These are made of sound durable leather. They are unaffected by dampness arising from sweating of the foot. They add to the durability. They are proof against strains. They keep the shoe in shape.

Amherst shoes are the kind you should be wearing right now, if you want the most serviceable and comfortable shoes your money can buy.

More bread and Better bread —And the Reason for it

A STRONG FLOUR can only be made from strong wheat. Manitoba hard wheat is acknowledged the strongest in the world—and that is the kind used for Purity Flour.

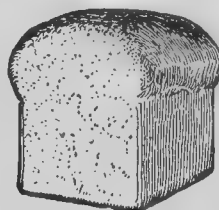
But that's not all. Every grain of this wheat contains both high-grade and low-grade properties. In separating the high-grade parts from the low-grade the Western Canada Flour Mills put the hard wheat through a process so exacting that not a single low-grade part has the remotest chance of getting in with the high-grade.

Of course this special process is more expensive to operate but it means a lot to Purity flour users—that's why we use it.

It means that Purity Flour is made entirely of the highest-grade flour parts of the strongest wheat in the world.

It means a high-class, strong flour and therefore yields "more bread and better bread."

Purity may cost a little more than some flours, but results prove it the cheapest and most economical after all.



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Pulls Stumps or Standing Trees.

Clears a two acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half is all it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grabs the rope at any point. Does not chafe rope; far ahead of old-style "take-ups." Smallest rope we furnish stands 40,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Stump machine, the L. X. L. Grubber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue. Largest manufacturers of Stump Pullers in the World. Established 1894.



MILNE MFG. CO.,
885 8th St., Monmouth, Ill.





Contributions on experiences in gardening and tree growing are cheerfully given space in this department.

Get Good Seed.

Low price in garden seeds is the last consideration. Fifty cents added to the price of a small order of seeds may easily add ten dollars to the price of the crop to be raised. There is often a good reason why the best seed must be sold at a higher price than poor seed. For example, our best radishes, lettuce, spinach, etc., are those that remain good longest and produce only a small quantity of seeds. It costs more to produce an ounce of this seed and it is worth more to the planter than a pound of ordinary seed. The same rule will apply to the tomato, cucumber and, in fact, nearly all vegetables except those of which the seeds are the edible part.

Use Willows.

If your shelter belt is too close to the buildings or not sufficiently wide, it would be a good plan to set a hedge of willows parallel with the windbreak and about five or six rods on the outside of it. Willows set in this fashion will grow thick and drift the snow in behind them, stopping it from drifting in so closely about the buildings. The space between the willows and other trees will answer admirably for a garden, at it will be so well protected from winds. The nurseries all have several willows that will answer for this purpose. The sharp-leaved willow is a good one and a fast grower. The golden willow is also a fast grower and has a golden bark that looks beautiful in winter. The laurel-leaved willow has very handsome, glossy foliage that makes it very pretty in the growing season.

The Farmer's Plantation.

Synopsis of an Address Recently Given in Southern Alberta Institute Meetings by Arch. Mitchell, of the Forestry Branch.

In the series of institute meetings just closed in Southern Alberta, Mr. A. Mitchell, of the Forestry Branch, Indian Head, discussed the farmer's plantation and the various problems connected therewith.

The speaker referred to the necessity for tree growth throughout the West, of the various problems that such work, systematically carried on, would help to solve, and the need there was of farmers giving the matter their early attention.

In many parts of the country the acute problem to-day was soil drifting, and although it was not so much in evidence as yet in Alberta, it was undoubtedly advancing at a very rapid rate. There were two ways to meet the situation—seeding to grass and growing trees. Of the two he considered tree planting the one most feasible and readiest to hand and the one which would have the furthest reaching effects. After this was accomplished, it would be much easier getting a successful stand of grasses and clovers.

The plantation should be begun on the west side and carried in strips right across the quarter section. Three of these, strips, each about four rods wide, across each quarter section would provide a pretty efficient shelter in a few years. The cost of preparation would be considerable, but not any more than a first class preparation for a crop would be in any case. The cultivation afterward would be the heavy item, but this could be reduced considerably by using a large proportion of trees which shaded the ground well, and by

planting them at 3 or 4 feet apart. By this close planting, the branches of the trees would soon meet and shade the ground, so that further cultivation would be unnecessary. This, in most cases, would be in the third year.

The best trees to use would be cottonwoods, tree willows, Russian poplars, maple, ash and elm; and if they were planted with a proportion of 50 per cent. maple—that is every other row maple—the best results would be obtained.

The fencing of these plantations would no doubt be an item of expense, but it must be remembered that in Alberta there are very few districts where a herd law is in force, and fields have to be fenced anyway, and if—as it must come in time—the West is to become a mixed farming country, the fields will have to be subdivided in any case.

In taking up the preparation of land for planting, the speaker insisted on breaking at the right time, that is in the flush of the growing season, when, if the sod were turned over flat, it rotted readily. It was possible to grow grain crops without backsetting, but you could not get a first-class forest crop without it. Everyone was familiar with the expression "there's nothing too good for the Irish." Trees were all Irish in that case and they required and deserved the best of care. Backsetting was one of the good things that were coming to them. In breaking, it was best to begin on the outside and finish in the middle, so that when backsetting was done it could be begun in the middle and finished on the outside. In this way all the sod would be turned over, and the usual soddy ridge left in the middle would be avoided. This ridge was a common source of trouble in plantations as the blue joint grass got a good start from it and it infrequently in time covered the whole plantation to the detriment of the trees. The outside edges next to the sod should also be cut clean with the plow and the soil thrown in, as, if the soil were left flush with the top of the grass the blue-joint soon worked its way into the trees.

A good plan, also, was to dig up with a fork any spears of this grass that might appear the very first year after planting, as otherwise these would soon spread and in this way many a hard day's work in attempting to get rid of the grass would be avoided.

The great thing in cultivation after the trees were planted, was to begin in time. "Don't wait for weeds, cultivate for moisture and you will not be troubled with many weeds."

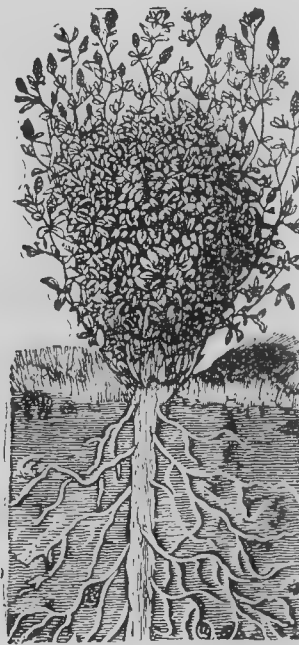
The discussions at the meetings brought out many interesting points, and the speaker, in most cases where the farmers had met with trouble in their plantations, was able to point out the cause of their difficulties and the remedies. Enquiries as to shrubs, conifers and hedges were frequent, a sure indication that farmers are getting in a position to attend to these things and that in a few years the Western farms will be well supplied with at best some of the amenities of the East.

Working the Garden.

By C. W. Husk, Manor, Sask.

In preparing my garden I plow 8 to 10 inches deep and harrow the ground well a week before I want to sow the seed. Then the day I sow I harrow again. I plant everything in rows 2 ft. 6 in. apart and thin the plants in the row to make sufficient room for them to grow. The garden is about 20 rods long and I stretch a line full length and follow along with a hoe, making a mark along the line to put the seed in. After seeding I take a horse and one section of the harrow to cover up the seeds, and in from 5 to 7 days put the harrows over again. This kills many little weed seeds and there is no danger of hurting the garden seeds for they are not up yet.

By sowing everything in rows the horse cultivator can be used, which is done just as soon as the rows may be made out. Keep up the cultivation every week until the plants become too



ALFALFA OR LUCERNE

Alfalfa

Produces from 3 to 7 tons hay to the acre. The nearest to a balanced ration of any crop grown.

Only the hardest strains of Alfalfa should be sown in the West. Most of the seed used in America is grown in the South Western States, but we are not handling that seed. We offer to the Western grower the very hardest strains known in the world.

We were the first to introduce Montana Alfalfa to the Canadian West. That was three years ago. We have Montana Seed this season, and we have Canadian-grown Alfalfa, too.

Both of these stocks are very hardy. Besides, we have Turkestan Alfalfa. Take your choice. Prices, 20 lbs. \$4.80; 100 lbs. \$23.00; including bags.

Grimm's Alfalfa is a good strain when it can be obtained genuine, but caution is required in accepting seed offered under that name as it is very scarce.

Have you tried the HONEY POD BEAN and the WESTERN BEAUTY GARDEN PEA? These varieties are Manitoba productions and they are good ones.

Write for our WESTERN SEED ANNUAL (free) and get the kinds you should have.

Steele Briggs Seed Co., Limited

Winnipeg

Canada

Introducers of the only Vegetable Seeds bred and brought out in the West

Simmers' Tested Seeds

When we say "Tested Seeds" we wish it to be distinctly understood that **all** our seeds are **tested**, and no seeds are sent out by us that do not show a high standard of germination.

To introduce our seeds to new customers we offer the following collection suitable for Manitoba and the North-West Territories:—

13 Packets for 50 cents post paid

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Cauliflower—Demidur

Celery—Simmers' Large Ribbed Dwarf White

Lettuce—Hanson

Onion—Australian Brown

Parsnips—Guernsey

Beans—Simmers' Giant Wax

Beet—Half Long Blood

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Carrot—Early English Horn

Corn—First of All

Parsley—Triple Curled

Peas—American Wonder

Radish—Scarlet Olive

With this collection we send our Handsome 1910 Seed Catalogue, and also a copy of Simmers' Vegetable Garden, which contains complete cultural directions for all Vegetable Seeds.

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IN CANADA.

THE KIND THAT PLEASES
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E.W. GILLET CO. LTD.
TORONTO, ONT.



The Columbines are lovely, graceful flowers, and, being nearly all natives of cold climates, thrive well in Canada. Plant some Columbines.

large to work through. I always find that it gives the plants room to grow. It is no more trouble to pull a turnip weighing 15 lbs. than it is to pull one weighing only 2½ lbs. In this great West, where land is plentiful, just give things enough room to grow in and you will be surprised.

Sweet Peas.

H. J. Edwards, Winnipeg, who is a crack hand at sweet pea growing, read a paper on this flower at the horticultural convention. We summarize the chief points:—

The reason that we so seldom see the sweet pea at its best in this province can be attributed chiefly to two causes, viz., late sowing and over-seeding. This paper is written for the purpose of advocating exactly the opposite—early sowing and sparse seeding.

In planting, north and south is the best direction, and an open space away from trees and buildings is most desirable. There should be at least four feet between the rows, five feet would be better still, for the purpose of attending to the plants.

In the spring as soon as the frost is out of the ground to a depth of three or four inches the seed should be sown, making a double row, six inches between the rows, the seed being planted four inches apart and one and a half inches deep. On light sandy soil the seed should be planted another inch deeper.

Sticks should be provided early for the plants to climb. When these are not obtainable, wire netting nailed on to good stout posts will do nearly as well.

During the growing season the surface of the soil should be kept loose and all weeds destroyed, care being taken not to disturb the roots of the sweet peas.

Don't forget that the deeper (in reason) the soil is cultivated the more vigorous will be the plants.

Don't imagine that you can grow sweet peas well on the same plot of ground indefinitely.

Don't forget that early sowing is half the battle in the successful cultivation of the sweet pea.

Celery.

It is easy to raise all the celery one can use. Sow the seed about the end of March in a box filled with fine rich earth. This should be screened if possible before sowing the seed, as screened earth will separate so much easier, and therefore break fewer roots, in transplanting. The seeds will need only the thinnest gauze of earth sifted over them. Moisten the earth well and level carefully before sowing. Then sow the seed and cover with dry fine earth. If the seed is sown first and water poured on, the earth will wash about and cover the seed unevenly. After sowing, put a paper flat over the soil and set away in a moderately warm place. This paper will prevent the soil drying on the surface, where the seeds are germinating. Remove the paper soon after growth begins. Do not set the box in a direct strong light. Transplant before the plants crowd too much. Celery plants grow very slowly at first, but even plants two inches long when set out in June will produce splendid celery by September if given a rich moist soil in which to grow.

Over 700 different named varieties of sweet peas are listed by the specialists.

Almost everybody makes a splendid garden this time of year—in his mind. Let's stick to it this year, till we get all the seeds down in the warm earth. Begin now. Bring out the catalogues, study, read, and pretty soon do something worth while.

To the man who is going to plant a block of trees we would say: Plant them thick enough. Four feet each way is approved by most experienced men. If too thin, the trees do not shade the ground quickly, the weeds and grass are harder to keep out, and the trees do not grow so straight and tall.



A low, spreading form of honeysuckle, some of which are very beautiful.

Better Crops With Half The Work



You can't afford to farm without Planet Jr implements. They are the greatest implements ever invented to prepare the ground for big results and lighten farm and garden labor. Over two million farmers and gardeners are now using Planet Jrs. Strong and lasting. Fully guaranteed.

No. 4 Planet Jr Combined Hill and Drill Seeder, Wheel-Hoe, Cultivator and Plow, saves time, labor, seed and money. Almost all useful garden implements in one. Adjustable in a minute to sow all garden seeds, hoe, cultivate, weed, or plow. Pays quickly, even in small gardens.

No. 12 Planet Jr Double-Wheel Hoe, Cultivator, and Plow is the handiest implement ever made for truckers and gardeners. All cultivating parts are of high-carbon steel to keep keen edge. Specially designed to work extremely close to plants without injury. Does away with hand-weeding.

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Seeds That Satisfy—BRUCE'S

ESTABLISHED 60 YEARS.

Special Offer.

All Postpaid.

Bruce's Royal Nosegay Collection Sweet Peas, 1 pkt. each 10 superb sorts, separate colors, for 25c.
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Bruce's Empire Collection Asters, 1 pkt. each of 5 magnificent varieties separate for 25c.

Bruce's "A" Vegetable Collection, 10 pkts. different varieties, our selection for 25c.
Bruce's "B" Vegetable Collection, 17 pkts. different varieties our selection for 50c.
Bruce's "C" Vegetable Collection, 17 pkts. different varieties and 3 ½-pints Beans, Corn and Peas, our selection for 75c.

Send for our handsomely illustrated 104 page Catalogue of Vegetable, Farm and Flower Seeds, Bulbs, Plants, Poultry Supplies, Garden Implements, &c. for 1910. FREE.

BRUCE'S Seeds are the Cheapest, because they are the Best.

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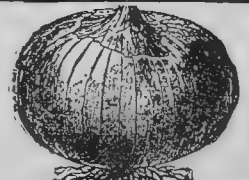
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Sparkler Radish, 5c. May King Lettuce, 10c.
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The 6 packets for 55c. postpaid.

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All kinds of **NURSERY STOCK** including Forest Trees, Standard Apples, Crab Apples, all kinds of Small Fruits, Flowering Shrubs, etc.

Write for catalogue.

B. D. WALLACE, General Manager.

The Nor'-West Farmer The Best Medium for Advertising



Grounds surrounding the Superintendent's Residence, Indian Head Experimental Farm.

Success with Bees in Manitoba.

By W. Wood, Emerson, Man.

When I was asked by your president to prepare a paper for the convention I hardly knew what subject to take up, as I have not had a great deal of experience in bee-keeping in Manitoba. I have been here only about three and one-half years and conditions were altogether different where I came from. So I thought I would take up the every day work in an apiary, upon which there is a great deal of scope to talk.

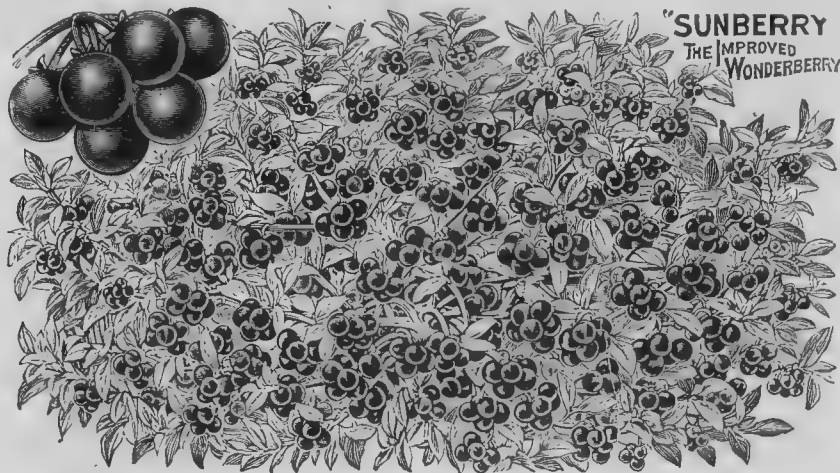
Last spring I started out with 125 hives. I sold my surplus stock, as I thought it unprofitable to keep more than 125 hives in one yard, as the bees would have to go too far for their food. However, I was fortunate in getting a good crop of honey, my bees making an average of 96 lbs. per hive, or in round figures 12,000 lbs. of honey.

I took my bees out of their winter quarters the first week of May, starting on the second. I prefer taking bees out of cellar early in the day, before ten o'clock, so they can get a good flight in the heat of the day while the sun is warm and they get settled down before the cool part of the day. Bees should always be put on the stand where they are to remain, as in their first flight they take their bearings, and the removal of the hive would be destructive, as bees will always go to where they first come out of the hive. We cannot set any particular date for putting bees out in the spring, but must be guided by the condition of the spring. I have always been opposed to putting bees out until there was food available.

Now once the bees are placed on the stands we must turn our attention to the breeding of the young, as it takes twenty-one days from the time the queen deposits the egg until the young bee is hatched out, and then about ten or twelve days before they go to the field, so you can see the importance of getting the brood chamber filled with brood early in the season. In order to accomplish the strengthening of the hive, we must see that it is clean, and if short of supplies furnish food either in the way of combs of honey or sugar syrup. I prefer honey for spring feeding in case of a shortage of pollen. It is often beneficial to set a dish of finely ground oats in the yard, and they will carry this in to feed the young brood taking the place of the natural pollen. Also, when bees are breeding heavily they require plenty of water. Fresh water should be kept in the yard.

Now the next thing is, are we going to work for a crop of honey or do we want to increase our number of hives. We cannot do both profitably. We must check the swarms if we are working for honey. I am afraid that a number of beekeepers fail in this point. If we want to check the swarming give plenty of room. Don't wait until they have started to raise young queens before putting on supers. I don't have one third of my hives swarm. In fact, I have one hive that hasn't swarmed for four years, so you see we can control the swarming to a great extent.

After a hive has swarmed it is advisable to go through and destroy all the queen cells but one, in case the young queen isn't hatched out. The hives should be gone through and queen cells destroyed every two weeks. By doing this you not only control your swarming, but you keep in touch with



SUNBERRY—THE IMPROVED WONDERBERRY

LUTHER BURBANK'S GREATEST CREATION. A Luscious Berry Ripening in Three Months From Seed
SEED 20 CTS. PER PKT. 3 PKTS. FOR 50 CTS. POSTPAID.

This is positively the GREATEST new Fruit and the best NOVELTY of modern times. These are facts which no one can get away from. The proofs are overwhelming in number and conclusive in character. Grown last year by 350,000 people.

Fruit blue-black like an enormous rich blueberry in looks and taste. Unsurpassed for eating raw, cooked, canned or preserved in any form. This great garden fruit is equally valuable in hot, dry, cold or wet climates. Easiest plant in the world to grow, succeeding anywhere and yielding great masses of rich fruit all summer and fall. The greatest boon to the family garden ever known. Leaves and branches are also used for greens and are superb. Everybody can and will grow it.

Luther Burbank of California, the world famous plant wizard, originated the Wonderberry and turned it over to me to introduce. He says of it: "This absolutely new berry plant is of great interest and value as it bears the most delicious, wholesome and healthful berries in utmost profusion and always comes true from seed."

READ my Catalogue for full description, culture, uses, etc. Also scores of testimonials from well-known and reputable people all over the country. Read the "Crime of the Wonderberry," THE SUNBERRY is an improved form of the Wonderberry which proved so satisfactory last year. It is greatly superior to the original type, and I alone have genuine seed.

SEED 20c. per pkt.; 3 pkts. for 50c.; 7 for \$1.00. Agents Wanted, \$12,000 in cash offers. With every packet of seed I send a booklet giving 99 Receipts for using the fruit, raw, cooked, canned, preserved, jellied, spiced, pickled, jams, syrup, greens, etc. It is superior for any of these uses. Also a copy of my 152-page Catalogue with every order.

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JOHN LEWIS CHILDS, Floral Park, N. Y.

P. S. This offer will not appear again. Write for Sunberry seed, and Catalogue at once.



SCHOOL fires are much more frequent than necessary, and so costly in life and money that no precaution which will prevent them is too expensive. "Classik" Embossed Steel Ceilings and Walls afford the cheapest means of fire-proofing any building. Sanitary too. Invisible dust-proof seams in which no dirt or germs can rest. Last forever without cracking, falling or becoming discolored. Hundreds of beautiful, classic designs to choose from. Pleasant school rooms make work easier and solve half the truant problem. Catalog "A" showing designs suitable for schools, churches, residences, etc., free on request.

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WINNIPEG—DUNN BROS.

Galt "Classik" Ceilings

Galt Classik Ceilings
Galt Steel Shingles
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Corrugated Iron
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Send us a sketch of the building you propose covering and the dimensions of your rooms and get our quotation for your bill of materials.

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BUILDING SUPPLIES

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Portion of a field of Cauliflowers in a Winnipeg Market Garden.



Marlin

.25-20

Model 1894 Repeating Rifle

This rifle is built for settled districts, where good range and killing power are desired, with safety to the neighborhood.

The Marlin .25-20 is a light, quick-handling, finely-balanced repeater, with the solid top, closed-in breech and side ejection features which make Marlin guns safe and agreeable to use and certain in action.

It is made to use the powerful new high velocity smokeless loads with jacketed bullets as well as the well-known black powder and low pressure smokeless cartridges, and is the ideal rifle for target work, for woodchucks, geese, hawks, foxes, etc., up to 300 yards.

This rifle and ammunition, and all other Marlin repeaters, are fully described in our 136-page catalog Free for 3 stamps postage.

The Marlin Firearms Co.,
105 Willow Street, NEW HAVEN, CONN.



Two Good Things For Farmers

—a trouble-proof fence and a trouble-proof fencepost.

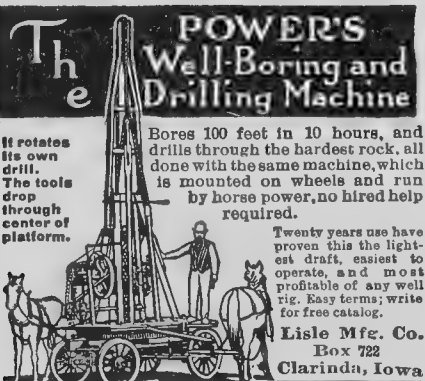
STANDARD Woven Wire Fence

is all No. 9 hard drawn steel wire, heavily galvanized—with "The Tie That Binds", which locks on the running wire and lies smooth on both sides.

OUR NEW STEEL POSTS are bent at right angles, which gives the necessary strength without the expense of solid or tubular steel.

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The Standard Wire Fence Co. of Woodstock Limited, Woodstock, Ont. and Brandon, Man.



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Bores 100 feet in 10 hours, and drills through the hardest rock, all done with the same machine, which is mounted on wheels and run by horse power, no hired help required.

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Lisle Mfg. Co.
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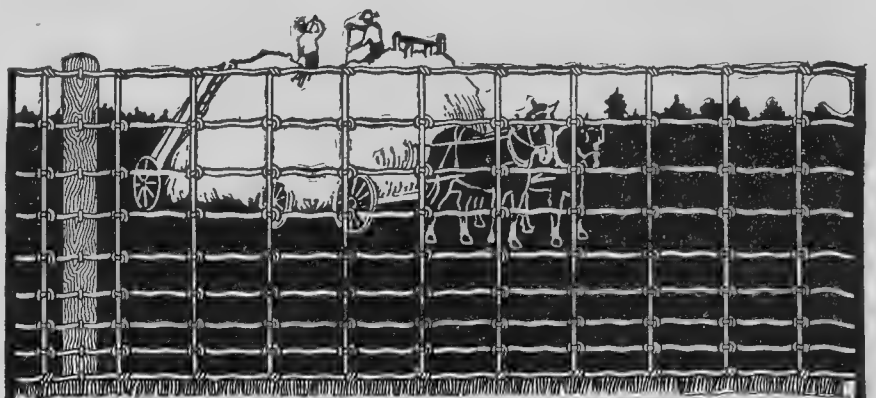
the working of every hive, and at once discover if any disease appears, such as foul brood, which has been so destructive to many apiaries. Although there has been very little foul brood in Manitoba, we must not lose sight of the fact that there have been one or two cases cropped up, but fortunately they were with people who only had a few bees which died from it, and it did not get a chance to spread.

Agriculture is now past the experimental stage, and it has been proven conclusively that Manitoba is just as well adapted to bee keeping as for any other branch of agriculture. With care and attention bee keeping will give us larger returns for the money invested than any other branch of agriculture. I sold ten hives of bees to one party last season which made over 150 per cent. on the money invested. There was \$50 worth of honey sold and the stock increased from ten hives to twenty-five, and when I last saw them they were all in good condition. All had plenty of winter stores. I should like to know if there is in existence any other branch of agriculture that would give greater returns than the busy bee for the money invested. Also, we must not lose sight of the benefit the little fellows are to the horticulturist. There is no orchard or garden complete without the bee. They not only add to the amount of fruit by distributing the pollen in the anthers of the flowers, but they provide the means of preserving the fruit when grown. We cannot estimate the value of the honey bee on the farm. Agriculture is no more a problem. The solution has been worked out and all that is necessary now is development to make it one of the paying industries of the country. We, as western bee-keepers, with the experience of L. L. Langstroth and many other distinguished bee-keepers, should not find it difficult to make a success of this valuable industry. We can produce the best honey that is made on the continent. We have only one grade and that is the best grade. Also we are not so subject to disease in our bees as in warmer climates, and with the abundance of all kinds of honey bearing flowers and the use of up-to-date hives we should make a success.

Now I might say a little on wintering bees. I have been able to winter most successfully. I go through my hives in the fall before the very cold weather begins and any hive that has not enough stores to keep them I make up the weight from the heavier hives. I like to have about twenty pounds of honey left in the hive for wintering, although they seldom consume that much. I might say that I have wintered good strong hives on less than ten pounds. I do not put them into winter quarters until the weather becomes quite cold and all chance of a flight is over.—Before Convention of Manitoba Bee-keepers' Association.

Convicted Ontario Apple Packers.

Following up the list of convicted Ontario apple packers published in our issue of Feb. 5, we note that the following have also been convicted of illegal marking and packing of apples since the end of December, 1909. We publish the list for the sake of the salutary effect that such action will have:—Alf. Baeker, Brussels, (4 charges); Chas. Baynton, Bothwell; Jas. Blackstock, Collingwood; A. C. Caldwell, Dundas; Thos. Conlin, Whitby; Adam Cook, Acton; S. Cowan, Palmerston; John Bierwirth, Elmwood; Ernest Elliott, Harley; R. Elliott, Goderich; W. Grierson, Thornbury; Chas. Hunt, Thornbury; W. R. Kent, Delhi; Lemon Bros., Owen Sound, (3 charges); C. W. Matthews, Kerwood; Mitchell & Auld, Watford; Perrin & Co., London; Geo. Smith, Delhi; J. M. Steel, Clarksburg; A. J. Stephenson, Glen Oak, (2 charges); Stewart Bros., Kincardine, (2 charges); Andrew Vandewater, Chisholm; Arthur Weaver, Squires; W. H. Whitesides, Ravenna; C. A. Watts, Thamesville.



Here's a fence that is strong and springy—remains taut and will not rust—

Peerless the Fence that saves expense

Put a Peerless fence around your farm and you'll get real service.

It will last through years of the hardest kind of use.

It will not rust—and rust is the greatest enemy of wire fencing.

It will not sag—when struck by a wagon or unruly animal it springs right back into position.

Our No. 9 Peerless fence is made of heavy English galvanized wire—all No. 9 gauge.

We tested all kinds of wire and found this English wire the best of all. No other wire we have tested

is drawn and galvanized with such care and thoroughness.

For this reason Peerless Fence will not rust—the splinter never chips off. The fence will last for years.

You can test and know how good any fence is before you buy it. Write for our simple formula for testing wire. We'll also send samples of Peerless Fence to test.

We know there is no fence made that will last as long and give you as much satisfaction as the Peerless Fence. Write to-day for our simple test and samples.

THE BANWELL HOXIE WIRE FENCE CO., Limited
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All Point the Way to Success

Name over the farmers you know that own good Fanning Mills. Aren't they the prosperous (progressive) men in your neighborhood? Aren't they the men who are making a success of farming? Haven't they good bank accounts? Don't you think they are able to point the way to success?

THE IMPROVED NEW SUPERIOR

is the Best of All Good Fanning Mills

Ask any of your neighbors who own one. Find out if what we say is so when we say that the New Superior is the best built machine. The most thorough in its separation of any kind of grain, and is the King of Wild Oat Separators.

"The Prosperous Farmer is the Farmer to follow."
Why don't you follow the way these farmers have taken.

We want to send you our booklet on our IMPROVED machine: OUR 1910 MODEL. We have improved our mill, increasing the capacity fully 35%. Our new wind adjustment makes it so you can separate by weight, which is the proper system you want in grading your seed oats. We have lots of other things we want to tell you about, which is to your interest. Write now. Be sure and see the Improved New Superior before buying any Fanning Mill and then judge for yourself.



The Harmer Implement Co.
132 Princess St., Winnipeg, Man.



While our columns are always open for the discussion of any relevant subject, we do not necessarily endorse the opinions of all contributors. Correspondents will kindly write on one side of the sheet only and in each case give his name—not necessarily for publication, but as a guarantee of good faith. All correspondence will be subject to revision.

Consolidated Schools at Gilbert Plains.

Jno. R. Dutton, Gilbert Plains, Man., writes:—"In your issue of Jan. 20 I notice a correspondent from Holland claiming that consolidating country schools has not satisfied the farmers in that district. This must, I think, be his own personal view, for, quoting from a circular issued under the signature of the school inspector, chairman, sec'y-treas. of the board at Holland, dated Dec. 31, '08, after consolidation had been in operation two full years, it is stated (I am quoting exact words): "Its working has given the greatest satisfaction to all the rate-payers, so much so in fact that none would entertain a proposal to return to the former state of affairs." So much for your correspondent's opening remarks. The rest of the letter is ably summed up in your editorial note and I would like to add that I agree especially with your closing remarks, viz., that farmers should send able delegates to districts where consolidation is in operation and see for themselves how it works. Let them take a ride around in the different vans and get personal knowledge from the ground up. I for one feel satisfied if this was done the movement would spread much more rapidly than it has come up to date. Seeing is believing. Anyone with experience of the defects of the present rural school system and then comparing it with the benefits of consolidation would not hesitate for one moment in holding up both hands in favor of the change. We have just commenced consolidating in this district. The three vans have been running two weeks to-day, a little too soon to give a personal opinion, but I can honestly say this much anyway and that is that consolidation will have to produce very poor results if it cannot sweep the present rotten system into oblivion."

Prize Seed Grows from Government Supply.

W. Barnett, Elfros, Sask., writes:—"Three years ago some farmers of the West poked fun at the seed supplied by the Dominion Government to the unlucky ones who were frozen out; so it may be interesting to note that the sweepstakes oats at the recent Regina provincial seed fair were from seed supplied to myself, and from the crop the year

following I sold the seed to the winner of the sweepstakes. These oats weighed 50½ lbs. to the bushel. At the provincial seed fair in 1908 the winner for the northern district was also from Wadena and exhibited oats supplied by the Dominion Government. I may also state that I bought seed for as much as \$3 per bushel that for purity was not a bit better than that supplied by the Government. After reading the above and seeing the Regina results, it is not unlikely that there is more than one of that opinion."

A Home Made Drag.

A subscriber wants to know how to make a home-made drag for packing and levelling the ground after seeding. A drag is not by any means the best kind of packing implement. Its effect is too much like that of a land roller—it mashes clods, fills up holes to a certain extent, and leaves the surface smooth—but it leaves it in such a smooth and flat condition that evaporation has its maximum effect, just the same as after a land roller has been used. It is an easy matter to make a drag of three or four two by twelve inch heavy plank and as long as desired, depending on the horse-flesh available to pull it. Fasten the plank together one edge on top of the other the same as siding is nailed on a house. Heavy spikes or, better, bolts may be used to fasten the plank together where they overlap and besides this three or four braces or cleats should be fastened across the top. Heavy hooks or eyes may be fixed onto the front plank so that a log chain may be attached to which the double tree will be hitched. If the drag thus constructed is not heavy enough it can be loaded with stones. And if the front edges of the plank are covered with hoop-iron they will wear longer.

Manitoba Farmer who Opposes Government Elevators.

Kenneth McKenzie, Burnside, Man., writes:—"As I think your paper one of the best papers published for the farmers, just allow me a little space to give my views on the farmer's rights. We hear a great deal about the farmers' grievance about their grain, the way it is handled. Really, one would hardly think it was wheat at all when it got to the Old Country markets now. I cannot see how we could have it any better than it has been this year, or much cheaper, unless we get it off the freight. Suppose the Government operated a system through a commission and owned the elevators. They do not say the handling would be done any cheaper. Now why should we borrow three million dollars, pay interest, put it into a business and derive no benefit from it? It costs quite a sum to run these elevators. There was a time, I believe, when they would have paid all right, when we were bound to put our grain through them or pay our two

cents per bushel anyway, but that time is past and I hope will never return.

"We have now just about as independent a way of disposing of our grain as we could have. We can load on cars off platforms or in elevators, just as we wish. We get our grain government graded and government weighed if we sell it by the car, and we get our price according to grade. If we ship by the elevator, we get our weight. If we think we are not getting our weight, we can easily catch them by weighing on scales at home. The only fault I can see was the passing of the Act that the elevators had to put a grade on your ticket; if they were not sure they would mark it a grade lower than it should be to make them safe, as if anything happened they would be bound to give out the grade your ticket called for.

"If the Government took over all the elevators, it would be just a monopoly, and I, for one, do not believe in that. Opposition is the life of trade. About all we see in some papers is about government owned elevators. If we had them, I do not think it would be long till we would be disgusted with them. They are not going to help out the small places at all, because they say that unless they can be sure of getting about ninety thousand bushels to run through them they will not build them, as they seem to think it will take that much to run each of them.

"I think there are other things the farmers can help themselves out on without any expense. On our implements we pay just about one-third more than we should, and we are quite to blame for it. We have it all in our own hands, and why not remedy it? Well, some may say, how can you do it? It is easy, if we farmers would only drop party politics. We are the majority. Put up farmers to represent us in parliament and make our laws for us. They know our requirements better than anyone else. If there were more farmers in Parliament I do not think there would need to be so many delegations to wait on the governments. Fellow farmers, let us go to work and put in farmers in the country. Let the towns and cities put in what they wish, let it be lawyers, doctors or merchants. There is no use of our howling about being cheated and robbed. We have it all in our own hands. God helps them who help themselves."

Non-Residential Taxation.

T. H. C. Hanson, Sask., writes:—"I think the time has now come when we should take advantage of everything which would tend toward the improvement of our valuable country. The speculators have picked the very choicest lands in the country and are merely holding them for the increase in the value of the land.

"Now, I think it is time that we should do something in order to get some bene-

fit from the speculator. If the value of those lands were raised from year to year the speculator would pay taxes in accordance and so let the country share in the increased wealth of the land.

"In the first place, they hold these lands and do not improve nor cultivate them, whereas if they were under cultivation they would prevent prairie fires, and not encourage such. In the second place, cultivation of these lands would be a benefit to both threshers and the farmers in the neighborhood, as our threshers now have so many long moves to make that they have to raise the price for threshing while if those above-mentioned lands were under cultivation the farmers would not have to pay so dear for their threshing bill. Vacant lands are also a harbor for vermin that destroy the products which the farmers have to work hard to produce. And wild land is of material damage to the cultivated land in holding the surface waters from soaking into the ground. It has to make its way off onto the cultivated land and so keeps the farmer's land in a cold, wet state and makes seeding so much later than should be. If the lands, as aforementioned, were under cultivation they would absorb the surface water and allow the farmer to start his seeding earlier.

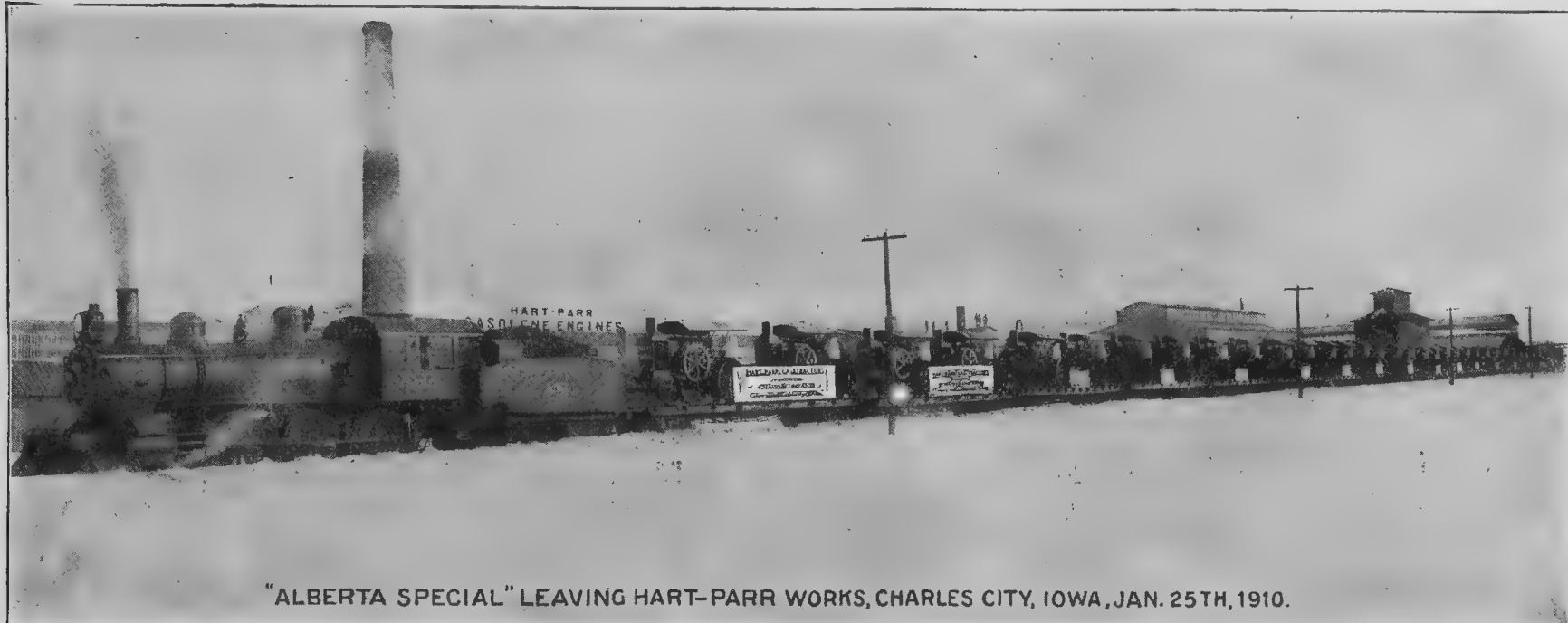
"There are numerous other damages to both the country and the people of the country which I could refer to but I do not want to take up too much of your space. I will fall back to the first-mentioned. As to its benefits, I think if those speculators had to either pay a surtax or break a 20th part of their land each year it would have a tendency to put their lands under cultivation, and on their neglect to do so the country should benefit by the tax, to improve our roads which are badly needed.

Mixing Disinfectants with Lime Wash.

A Saskatchewan subscriber wants to know if there is anything that can be mixed with plaster and lime wash which will keep vermin out of a log hen house.

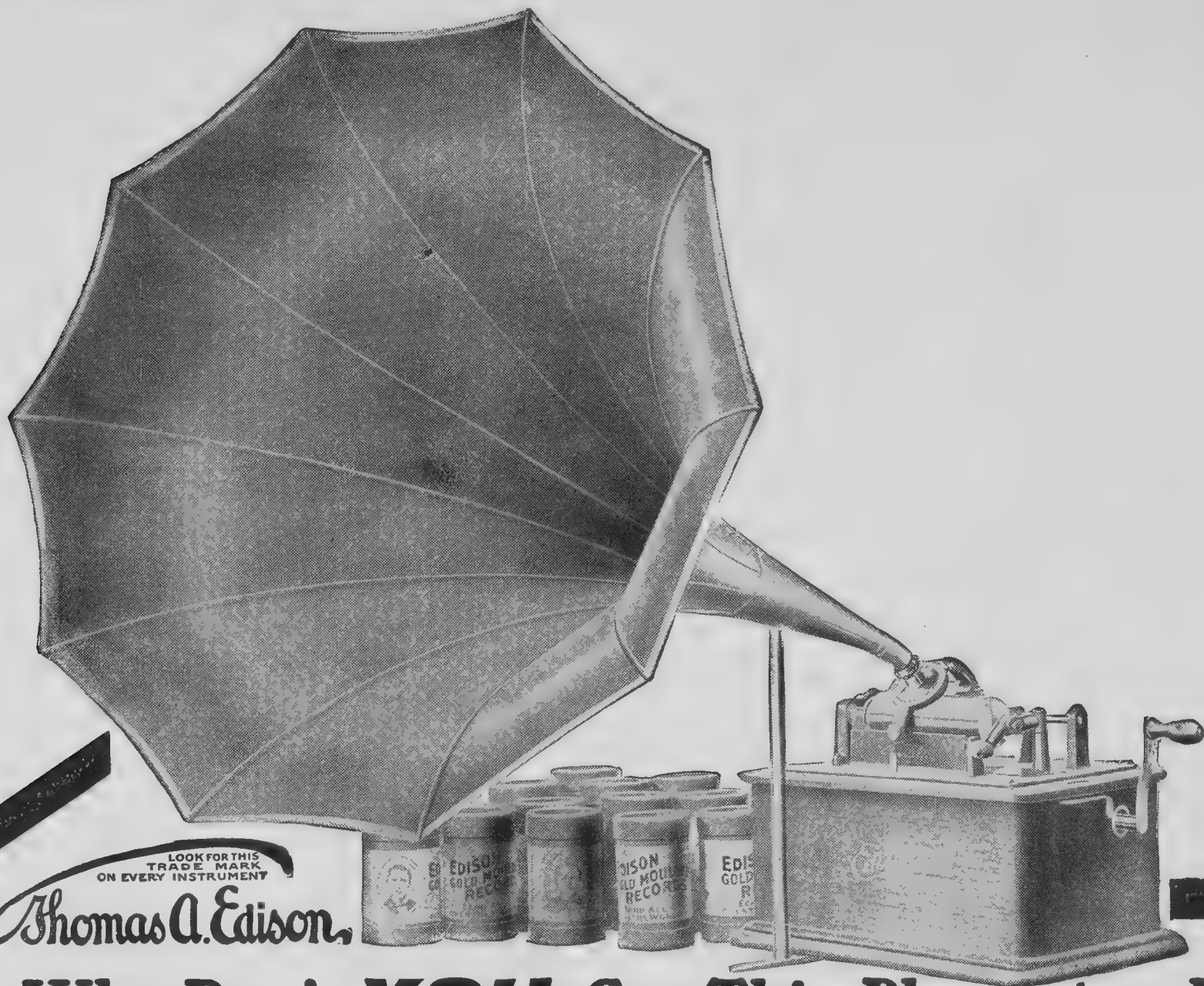
A. W. Foley, Poultry Superintendent, Edmonton, writes:—"With regard to using disinfectant in limewash, I would say that we generally recommend using crude carbolic acid in proportion of four ounces of carbolic acid to a gallon of lime wash. I would not advise using formaldehyde in the whitewash as the fumes would be injurious to the birds and formaldehyde loses its value as a disinfectant when the fumes are gone. If it is desired to use formaldehyde I would advise first disinfecting with same and after airing the building well before placing the birds in it, whitewash in the ordinary manner. The whitewash itself if used frequently will prevent the invasion of parasites."

C. H. McGuire, Swift Current, Sask., in renewing his subscription, writes: "I would hate to miss a copy. It is the best paper I ever read."



"ALBERTA SPECIAL" LEAVING HART-PARR WORKS, CHARLES CITY, IOWA, JAN. 25TH, 1910.

A solid train load of traction engines is an unusual sight. This train load was shipped by the Hart-Parr Co. to the Chapin Co., Calgary and Lethbridge, Alberta, and made the run entirely by daylight, attracting considerable attention en route. The selling price at destination was over \$100,000—the freight and duty alone amounting to over \$20,000. Every engine was sold before leaving the factory.



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I will send you this Genuine Edison Fireside Outfit (the newest model), complete with one dozen Edison Gold Moulded Records, for an absolutely free trial. I don't ask any money down or in advance. There are no C. O. D. shipments; no leases or mortgages on the outfit; no papers of any sort to sign. Absolutely **nothing** but a plain out-and-out offer to ship you this phonograph together with a dozen records of your own selection on a free trial so that you can hear it and play it in your own home. I can't make this offer any plainer, any clearer, any better than it is. There is no catch about it anywhere. If you will stop and think just a moment, you will realize that the high standing of this concern would absolutely prohibit anything except a straightforward offer.

WHY I Want to Lend You this Phonograph:

I know that there are thousands and thousands of people who have never heard the Genuine Edison Phonograph. Nearly everyone is familiar with the screechy, unnatural sounds produced by the imitation machines (some of which though inferior are very expensive). After hearing the old style and imitation machines people become prejudiced against all kinds of "Talking Machines." Now there's only one way to convince these people that the Edison is superior and that is to let the people actually see and hear this remarkable instrument for themselves. That is why I am making this offer. I can't tell you one-twentieth of the wonders of the Edison, nothing I can say or write will make you actually hear the grand full beauty of its tones. No words can begin to describe the tender, delicate sweetness with which the genuine Fireside Edison reproduces the soft, pleading notes of the flute, or the thunderous, crashing harmony of a full brass band selection. The wonders of the Fireside Edison defy the power of any pen to describe. Neither will I try to tell you how, when you're tired, nervous and blue, the Edison will soothe you, comfort and rest you, and give you new strength to take up the burdens of life afresh. The only way to make you actually realize these things for yourself is to loan you a Genuine Edison Phonograph free and let you try it.

You Don't Have to Buy It: All I ask you to do is to invite as many as possible of your friends to hear this wonderful Fire Edison. You will want to do that anyway because you will be giving them genuine pleasure. I feel absolutely certain that out of the number of your friends who will hear your machine there will be at least one and probably more who will want an Edison of their own. If they don't, if not a single one of them orders a Phonograph (and this sometimes happens) I won't blame you in the slightest. I shall feel that you have done your part when you have given these free concerts. You won't be asked to act as our agent or even assist in the sale of a single instrument. In fact, we appoint no such agents, and at the rock-bottom price on this wonderful new outfit we could not allow any commission to anyone.

OWNERS OF EDISONS—1910 MODEL EQUIPMENTS NOW READY! All those who already own an Edison phonograph can wonderfully improve their old machines, making them almost like the new 1910 machines, and can also get the SUPERB new 1910 Edison AMBEROL records, the loudest, clearest, most beautiful records ever made—*playing THIRTY AS LONG* as any records heretofore made.

OWNERS OF EDISONS—write for free circular A.A. describing all this. F. K. BARSON, Manager.
F. K. BARSON, EDISON PHONOGRAPH DISTRIBUTOR, 355 PORTAGE AVE., DEPT. 5183
AMERICAN ADDRESS: EDISON BLOCK, CHICAGO, ILL.

If You Want to Keep The Phonograph—that is if you wish to make the Phonograph your own, you may do so, but it is not compulsory. I am asking you merely to send for a free demonstration. I won't be surprised, however, if you wish to keep the machine after having it in your own home. If you do wish to keep it, either remit us the price in full, or if you prefer, we will allow you to pay for it on the easiest kind of payments.

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Just sign your name and address on this coupon now and mail it to us. I will send you our superbly illustrated Edison Phonograph Catalog, the very latest list of Edison Gold Moulded Records (over 1,500 of them) and our Free Trial Certificate entitling you to this grand offer. Sign this coupon now, get these catalogs and select your records at once. Remember the free concerts. Sign this coupon right now or send a postal card or letter if you prefer. But do it now. No obligations, just get the the catalog. Sign the coupon and mail it to us right away before you forget it.

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A PLAIN STATEMENT

of fact about "Remnant Sales" of pianos and musical instruments generally.

A "Remnant Sale" Conveys the belief that you are getting something far below its real value. No doubt you can get certain articles that look cheap, but if you took the trouble to refresh your memory as to the **staying powers** and lasting qualities of all you have bought in the scramble and excitement of the "Unprecedented Values" you'll say as every one else has said: "I wish I had paid a fair price for something **with a character** and about which there is no manner of doubt".

The Karn-Morris Company

will send you direct to your home from their Winnipeg Warehouse, an instrument that has **no equal** in tone quality. It will stand the test of time and rough usage unimpaired.

Every Piano made by this house goes out with an **unlimited and unqualified guarantee** that it will give perpetual satisfaction; that the purchaser is getting the very best value while escaping all dealers profits. It is positively a factory to home deal as the Karn Morris Company handle their own goods from start to finish through their Western distributing house at Winnipeg. The prices and the easy terms of payment are made on the basis that you **really receive** a piano or organ made from the finest material that nature produces and that human skill can fabricate.

If you cannot call at the Winnipeg Salerooms, (where a complete collection of those superb instruments may be seen and tested) write for full descriptive catalogue and particulars of part payment plan. Especially would the Karn-Morris Company invite inquiry about the following which are strongly recommended for the Farm Home.

Style A. NEW KARN PIANO - **\$350.00**

4 ft. 4 inches high, Seven and one third octaves with the full body tone of a Grand. Best value in America.

Style C. 17. KARN ORGAN - **\$110.00**

6 Octaves, 4 Sets of Reeds, Splendid tone, excellent value.

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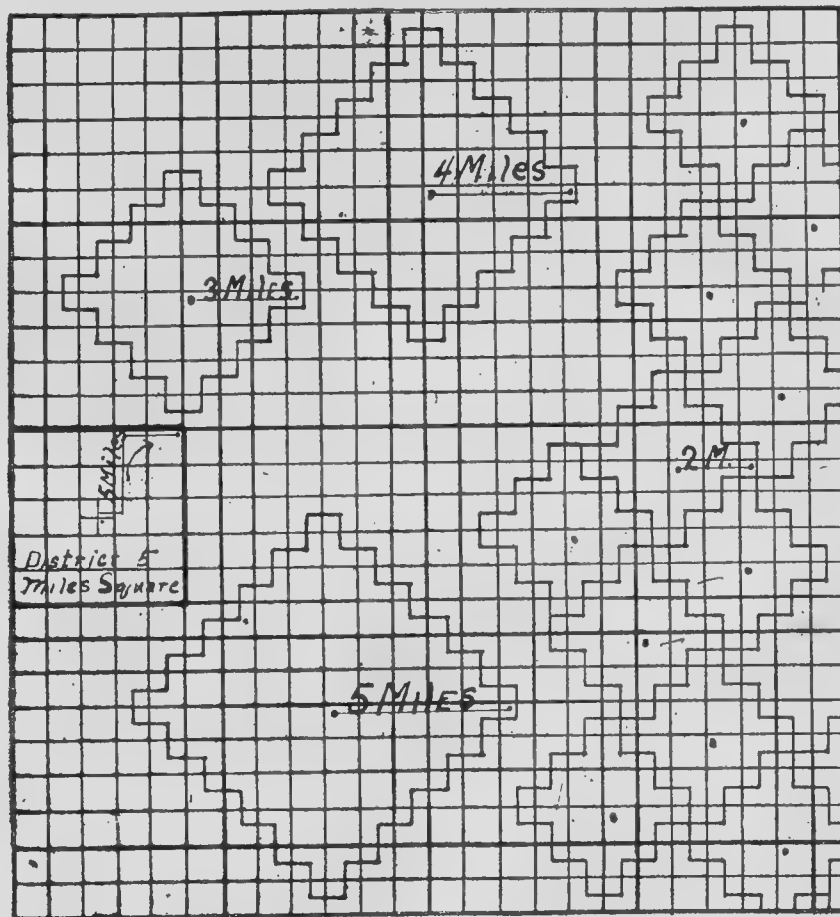
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A New Plan for Dividing School Districts.

Jno. A. Dodd, Star City, Sask.:—"As there has been some discussion in your correspondence columns of late about school questions, etc., I am sending in a plan of a school district which I had drawn up some time ago. I would like anyone to consider the advantage of it over the present way of dividing the school districts. The idea is to get as many sections of land as possible in one school district and have the outside sections as near to the school-house as possible. Of course, this would mean a permanent division instead of the present way of the people dividing their own districts. The small plan shown will give one school district 13 sections, the farthest family being two miles from the school house, (that is by living on the nearest corner to the school house, which is always on the road allowance). By enlarging the district so as to contain 25 sections, the distance would be 3 miles from where the farthest family would live from the school house. By making the district to contain 41 sections, the distance would be 4 miles, and with 61 sections the distance would be 5 miles. All sizes of districts of this plan fit together the same the small plan shown leaving

children. When the boundary lines are run on the section lines, it makes the children that live on one side of the boundary line walk down the same road as the children on the other side, one family of children going in one direction to their school house, while the other children go the other direction. In that way the whole territory of the school district has to be travelled by the school children. Again, when the boundary lines are on the section lines it throws some of those that live in the corner of the school district farther away from the school house than some others that are not living in the district at all, while by dividing through the centre of the sections, the farthest family away from the school house is at least a mile nearer to their own school-house than any other.

Another advantage with this plan would be the paying of the taxes, that is, for each township to pay the amount of taxes of the district that reaches into that township. For instance, where the country is just settling up, suppose there are just enough school children in one district to build a school house and that district reaches, say, into three different townships, by having the small district of 13 sections, we may say, for instance, 33 quarter sections of this school district are in



Mr. Dodd's New Plan for Dividing School Districts (see article accompanying).

no territory outside of any of the districts.

The way the districts are now divided the limit is 5 miles square and that throws the farthest child $4\frac{1}{2}$ to 5 miles from school with but 25 sections in the school district, compared with 61 sections by having the same distance to go to school. That would make quite a difference in the taxes and number of children going to school.

The largest plan shown is too large for a school district but it is shown to show the difference in the number of sections that can be included by this plan of division and still the farthest families be no farther from the school house than by the square plan, 5x5 miles, which contains 25 sections. The large district of this plan would be alright for consolidated schools. Four vans could travel in the consolidated district, 41 sections, each van would have to travel 8 miles from where it is to start until it gets to the school house, the farthest child not having to walk over a mile to get to the road where the van would travel.

The boundary line of every district is run through the centre of the sections thus throwing a mile of territory between all the districts that does not have to be travelled by the school

one township, 10 quarters in another, and 9 in another. Let the township that has 33 quarters of the district pay taxes on that number of quarter sections, that amount being equally divided and paid by the land holders all over that township. The other township pays taxes on 10 quarters and the other pays on 9 quarter sections. Then let all children around the district that can get to that school have the same privilege of going to that school as the children that live in the district. Then when the next school house is built it can be built the same way and so on until all are built. Then each land owner is paying an equal amount.

On nearly every farm there are a lot of useless old things littered about. Keep cleaning up and burning up.

J. W. Caswell, Rosthern, Sask., writes:—"I guess my subscription has run out as I have not received the last two issues. I do not want to be without your paper even if it were double the price. There seems to be something lacking when your paper does not come."

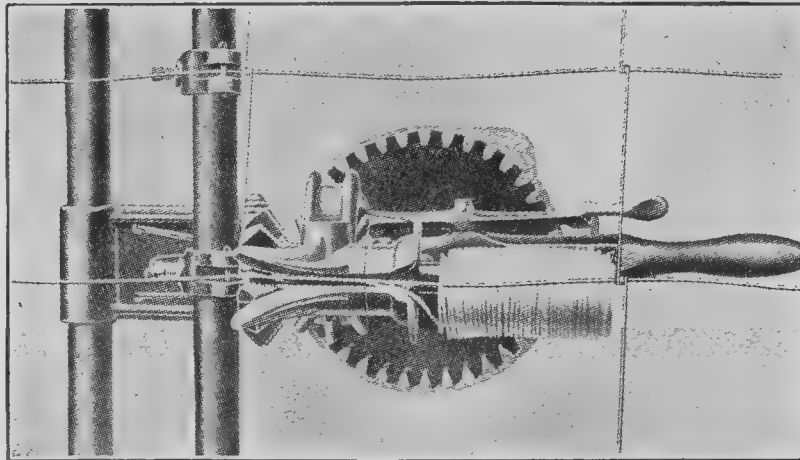
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THE FARMER'S FRIEND

¶ NEVER in the history of Canada has such an opportunity been offered to the Farmers of the West.

¶ To wind up the Estate, I will sell One London Fence Weaving Machine, One Pair of London Pulley Blocks, One Wire Grip, One Wire Reel, One Combined Splicer and Staple Puller and One Spooler for Spooling Wire for Weaving Machine. A Complete Fence Building Outfit delivered, freight paid, to any station in Western Canada for \$10 cash with order. Less than One Third of what this Money Saving Outfit has ever been sold before.



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VETERINARY

As it is desired to make this department of the greatest possible value to subscribers, advice is given in it free in answer to questions on veterinary matters. Each enquiry must be accompanied with the name and address of the subscriber, but, if so desired, the name will not be published. Free answers are given only in our columns. Persons requiring answers sent them privately by mail must enclose a fee of \$1.50. All enquiries must be plainly written, and symptoms clearly but briefly set forth.

Thrombosis.

M. A. F. Weyburn, Sask.—“I have a horse about ten years old. About three years ago he took what I thought was rheumatism and I treated him for it and he seemed to get all right until last fall, when he would go lame first in one leg and then the other. He has kept getting worse until he cannot go forty rods now without lying down. Then his joints and hips seem to go stiff and he will suffer terribly, but I fail to see any swelling or pain at any other time.”

Answer.—This disease affects the large blood vessels within the body cavity and is incurable. Horses suffering from this condition are usually free from pain or lameness until exercised for a little while, when the symptoms are suddenly developed. The horse becomes severely lame or even paralysed and unable to stand. Great pain is evinced by struggling and sweating, but the acute symptoms pass off after the animal has remained quiet for a little time and he is able to walk slowly back to the stable. If possible get a veterinary surgeon to confirm the diagnosis by a rectal examination.

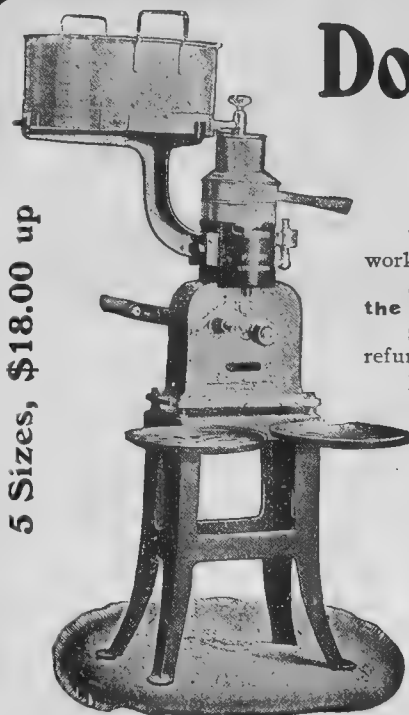
Mysterious Disease.

A Constant Reader, B. C.—“We were working two horses the day before we saw them show any signs of not being right (both last year and this). The next morning when I let them go to water, as soon as I got them, turned around they almost fell over and the illness remained on them for about a week before they took a turn for the better, and I noticed that at the least noise to come unawares to them they would shiver all over. The horses last year which had this illness started in it one a week before the other. They seem to eat and drink well. The horse which we have had at this present time we have in slings. I might say that all of them are what might be called aged horses, up to twelve years old. Is this a contagion in this country, and what is it? I have attended to a lot of horses in the Old Country which have been ill, but never saw any like these.”

Answer.—The symptoms point to an affection of the spinal chord, such as spinal meningitis, but are not sufficient for a positive opinion. It is not likely to be contagious, but it might be well to isolate the sick in case of accident. Aconite would be a good remedy to use, with perfect quiet and a laxative diet.

Bloating.

T. A. G. Alta.—“Ox at noon hour got at and ate some seeds at straw pile. At noon next day he drank a large quantity of water and about five o'clock he started to swell and bloat. He also walked wide apart with hind legs. There did not appear to be a stoppage, but it seemed to be the other way. I unhitched him from plow and he lay down and tried to roll. I gave him a drench of pepper and ginger, also a part of bottle of pain killer, but he kept getting worse and wanted to lie down and get up all the time. I kept him on the move all I could, but he died about eight o'clock that night. Do you think he could have been saved, and what should I have given him? Would a trocar or knife have been of any use to let the gas out of him?”



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We will ship you the Domo you order. You, on your part, are to give the Domo a fair trial. We want you to compare it for 30 days with any other well known standard make; for example, with any other Separator advertised in this magazine. Compare the machines in actual test; note the amount of cream you get from each; compare ease of running, etc. If the Domo is not a better Separator than the other one, even though the other costs two or three times as much—send the Domo back.

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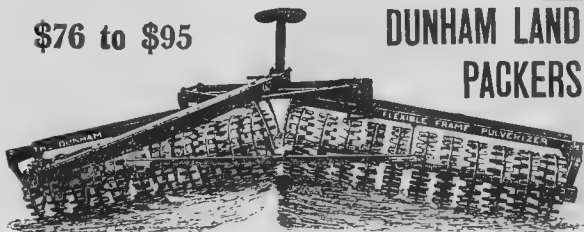
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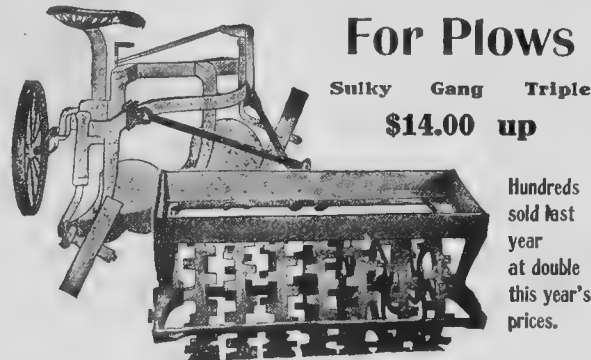
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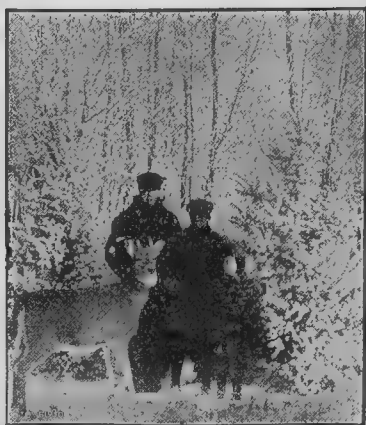
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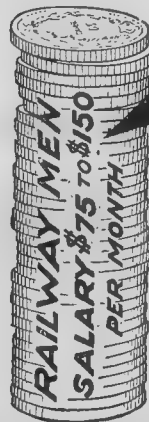
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Could I have done it myself, and how should it have been done?"

Answer.—The ox should have been kept from drinking for some time after eating the seeds. When bloated he might have been relieved at first by two or three ounces of turpentine and milk. At a later stage nothing but tapping him would have been of any use. This is done by plunging a trocar into the left side half way between the last rib and point of the hip. If no trocar is at hand, an ordinary jack knife can be used, but the wound is slow to heal.

Mare Lost Her Foal.

J. K., Weyburn, Sask.—"I have a brood mare, twelve years old, that has raised two foals. Last year she aborted four months before she was due to foal. Would it be wise or not to breed this mare again this year?"

Answer.—There is great danger of the mare repeating the abortion if bred again this summer, and it would be better not to breed her until next year.

Straight Ankles.

G. G., Bowell, Alta.—"I have a last year's colt and he is beginning to go straight on his ankles. Would a blister do him any good? His dam is a lame mare; she goes that way on her fore ankles; her first two foals go all right."

Answer.—Blistering is not likely to help the colt. Rub the back sinews with some liniment twice a week, keep the heels of the feet low, and let it have plenty of exercise.

Swollen Knee.

A. B. P., Davidson, Sask.—"I have a mare that has a swelling on her knee. It is hard. I blistered it with caustic balsam, but it has done no good. She is good on the trail as the swelling does not interfere with the action of her leg. I don't know the cause of it, except that perhaps she fell in a badger hole or has been striking the neckyoke going through deep snow. I have the neckyoke up tight. I also have an ox that has a spavin. I have blistered it twice without any result."

Answer.—Nothing would be better for this than to have it "pin fired" by a veterinarian, but if that is impossible, you might try absorbine. The ox should be fired, too.

Lousy Horses.

O. L., Dufrost, Man.—"I have eight head of aged horses. They were badly run down in the fall; some have gained and others have not. I feed one gallon of oats twice a day and all the oat straw they can eat. They have all been lousy and have washed them with creolin. They still rub. Could it be mange?"

Answer.—If you have a warm stable you cannot get rid of the lice easier than by clipping the horses, but if your stable is cold it would be risky to do this in severe weather. One application of creolin or anything else will not get rid of lice for the reason that the eggs are not destroyed and will soon produce a fresh army of parasites. Use the creolin solution pretty strong, one ounce to a quart of water, and rub it into the skin with a brush once a week until the skin is well soaked with it. The lice are the probable cause of the horses doing badly.

Meniere's Disease.

Subscriber, Welwyn, Sask.—"I have a mare, coming four years in the spring. She is in good shape and very full of life. When I drive her two or three miles she will stand up, shake her head and throw it from one side to the other and twitch her ears and strike out with her front feet. After standing for a minute or so she will go on all right again. She first did this last summer when I was mowing hay one very warm day and she was pretty hot. I feed her one-half gallon of oats three times a day and some hay and oat straw."

Answer.—This is a rare disease

among horses and its cause is not well understood, but its seat is in one of the ears. She should not be worked except very lightly and if an attack comes on, should be immediately stopped and allowed to rest.

Heaves.

P. B., Plum Coulee, Man.—"I have a five year old stallion that has a bad cough. He has had this for four or five months. It inclines to be a dry cough and when driven a little he breathes hard."

Answer.—The stallion is showing signs of "heaves" or "broken wind." He should be carefully fed, avoiding dusty oats or damaged hay. Don't give too much hay, and let this be sprinkled with lime water, as also the oats. Give a tablespoonful of Fowler's Solution three times a day.

Retained Afterbirth.

W. F. C., Sask.—"I have a cow that came in about six weeks before her time. The calf was born alive but died shortly after. The cow has not passed the afterbirth yet. Should this have been taken away from her at the time or will it come away naturally in six weeks' time (the proper time for her to have calved)? Will the milk from a cow in this condition be fit for human consumption?"

Answer.—The afterbirth should always be taken away by hand if it does not come away on or before the third day. If left, it will putrefy and gradually escape in the bad smelling discharge that may persist for months. This is bad for the cow, and although they don't die of it, the health is impaired and they usually become thin and look wretched. The milk is affected and should not be used. After a time the discharge will cease and the cow will regain her health.

Chronic Cough.

N. T., Sask.—"My cows are coughing. Last fall they ate some dusty hay that had been taken out of a bed. The cows are getting worse."

Answer.—Unless the cows are suffering from tuberculosis, the following should help them: Fluid extract belladonna, two ounces; fluid extract hyoscyamus, one ounce; oil of tar, five ounces. Give a tablespoonful twice a day.

Crippled Mare.

O. W. S., Didsbury, Alta.—"I have a ten year old mare which has been ailing in her hind legs for several years, without working. When turned out of stable in the morning she walks very cautiously and treads on her toes principally for some time and takes short steps. She is in fair condition, spirited, but cannot run. I was advised to give her a tablespoonful of the following three times daily: Fluid extract of nuxvomica, 2 ounces; fluid extract of prickly ash, 4 ounces; Fowler's solution of arsenic, 6 ounces. I have given the above treatment four times without any apparent benefit."

Answer.—Try the following: Lagol's Solution, half a pound. Give a tablespoonful twice a day diluted with half a pint of water.

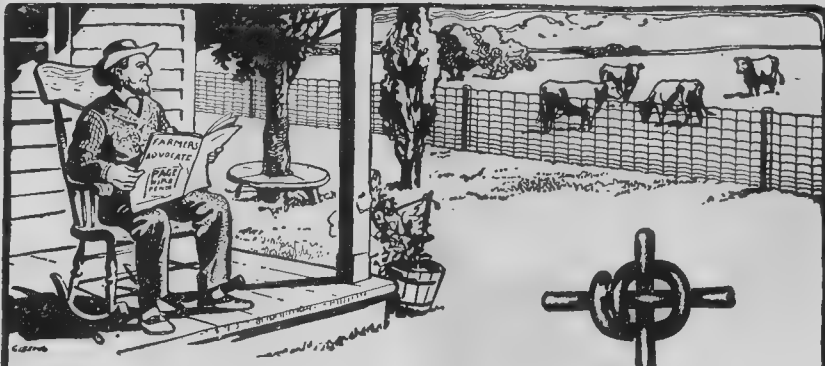
Worms.

W. O., Bangor, Sask.—"I have a nine year old mare in foal that has worms about three inches long. 2. In her dung there are other small objects about the size of wheat kernels, white or greyish color."

Answer.—1. Starve her well and then give two ounces of turpentine, two drachms santolin and one quart raw linseed oil. 2. Cannot tell what these are without seeing them.

Night Sweats.

H. K., Yarbo, Sask.—"I have a mare, twelve years old, that sweats at night in the barn. When working she does not sweat. What is the cause, and how can it be cured? 2. What is the cause of a colt being wet on the hips? 3. I have a mare, 13 years old,



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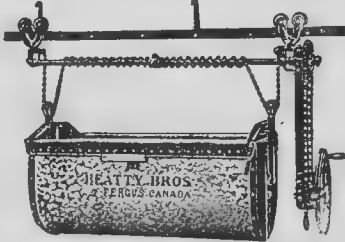
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that has never had a colt before. Is she safe. She is also very fat."

Answer.—1. Bad ventilation of the stable is a frequent cause of this. Give the horses more air. 2. Same cause. 3. There is no danger in breeding this mare, but she should be worked right up to the time of foaling.

Shoe Boil.

A. B. C., Gerald, Sask.—"I have a horse with what they tell me is a shoe boil. He has had it for over a year now and it has become quite large and matter is constantly running from it. It is a nasty looking sore. I syringed it at first with carbolic acid and water but it did not help it much. Last fall it seemed to be drying up but as soon as the weather got cold it broke out again and got larger and is now as large around as a common saucer. Would blistering cure it?"

Answer.—It is often necessary to use the knife before a shoe boil can be cured. Try injecting a little peroxide of hydrogen into it twice a day.

Sore Shoulders.

C. B., Elbow, Sask.—"I have a gray Percheron mare, 9 years old, weighing 1550 lbs. Her right shoulder was sore off and on all summer but I got it healed up in the fall. Her shoulder is apparently smooth and all right when not in use. I drove her yesterday for the first time in two weeks and the shoulder was all a raw sore when I got home. I use a sweetie half collar and it fits perfectly. The shoulder seems very tender. The mare is in foal."

Answer.—A thin skinned horse should have the shoulder toughened by the application of astringent washes before hard work is begun after a period of idleness. The following wash will render the skin better able to stand the pressure of the collar and help to heal it if abraded: tannic acid one ounce, glycerine four ounces, carbolic acid half an ounce, water one quart. Wet the shoulder with this twice a day.

About a Steer.

T. W., Lenore, Man.—"I killed a two year old steer which I had fed on hay and chop all winter. He did not fatten well at all so last Thursday I killed him, and between the skin and the flesh between the shoulders there was a watery yellow corrupted substance and the same inside at bottom of throat, and the lungs were of a palish color having the appearance of being half cooked. His sight was also affected."

Answer.—The appearance noted in the shoulders is similar to what is seen after recent bruises and cattle killed after shipment in cars frequently show such places. They do not affect the meat; in this steer, however, there must have been something else the matter to account for the condition of the lungs and eyes, but what it was is difficult to decide without a personal examination.

Nymphomania.

D. C., Herbert, Sask.—"I have a mare nine years old. I bought her two years ago out of a carload that was shipped from Ontario. At the time I bought her she was in heat, and the man who sold her said she was a good breeder. That summer I bred her to a Clyde stallion, but she failed to get in foal. Last summer I bred her again to another heavy horse but still she is not in foal. She is a big Clyde mare, and comes around regularly. Every time she does she is so hard to move around that it is annoying to drive her. She will pass water with a very foul smell to it. She has been running outside a good bit and if I ride up behind her on another horse she will switch her tail and let fly some more of that foul urine. She will come around the other horses and smell around their hind legs like a stallion does. She does this regularly and is the same in the stable; every chance she gets she smells the other horses' manure. She sweats a good deal and keeps thin. I am feeding all the hay she will eat up clean, two gallons whole oats a day with stock food in it, and always plenty of salt to lick."

Answer.—The mare could be cured by having her ovaries removed, but this

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is an operation that can only be done by a skilful veterinarian. You had better try to get her in foal, using a young horse if possible.

Nasal Discharge.

Alta. Subscriber.—“1. I have a horse which at times runs a whitish fluid at the nose, and if pulling hard at a load will at every breath snort as though he had an obstruction in the nose. He eats well and is in fine shape. Is this contagious? 2. Is it advisable to give a mare in foal for a period before foaling (say, a week) bran mashes with flaxseed in? If so, what quantity? Would it be injurious to the mare to feed her flax regularly in her grain at any time when in foal?”

Answer.—1. The nasal mucous membrane is in a state of chronic catarrhal inflammation and in the upper part of the passage is swollen so that the breathing is impeded. It is not contagious but may be difficult to cure. Give a tablespoonful of tincture of iron three times a day. Dilute with a little water and sprinkle in the feed. 2. Flaxseed is not considered good feed for a mare in foal and should not be given until a month before foaling, when a cupful a day may be given without any harm.

Rolls After Drinking.

E. B., Grassy Lake, Alta.—“I have a mare, 6 years old, that acts strangely the last week. After drinking she will follow other horses, lay her head over their backs, switch her tail and roll once or twice. After half an hour, don't see anything out of the way.”

Answer.—Give the worm treatment as advised elsewhere in this column.

Rickets.

R. F. B., Oxbow, Sask.—“I had as fine a litter of pigs as I ever saw until they were six weeks old. Just at time of weaning they developed a hump on their backs resembling a camel; some of them became crippled. I took as good care of them as I knew how, kept them dry and warm; fed them shorts, skimmed milk and plenty of water. Have changed feed to two parts oat chop and one part shorts, but they do not improve much and I am ashamed to see them going around the yard. Can you help me out of the difficulty?”

Answer.—This is supposed to arise in some defect in the assimilation of bone forming material and you did wisely in changing their feed. If possible, give them some raw potatoes every day, and five grains of phosphate of lime to each pig in each feed.

AMONG THE BREEDERS.

Hillcrest Stud Clydesdales.

Taber and Pummer, proprietors of Hillcrest Stud of Clydesdales, Condie, Sask., have issued a very descriptive catalog of their recent importations of stallions and mares. A copy of this may be secured by writing for it. The cataloged importation is made up of 23 stallions and 12 fillies and were selected in the Old Country by R. H. Taber, with the object of securing animals of quality combining the size so much needed in the draft horses at the present time. The Hillcrest Stud is situated about two miles from Condie, the first station out of Regina on the Prince Albert line and all trains are met daily. Long distance phone in the house. All these horses are now in the stables at Condie and visitors and intending purchasers will be gladly met at the station and shown through the barns. We would like to make extended mention of each individual animal but that would be impossible. The four year old Acme King that has been at the head of the Hillcrest stud for the past two years promises to be a worthy successor to Baron's Gem. Acme King is by Majestic and is well known to the western public, having won the championship at Calgary Spring Show in 1907 and first prize as a 2-year old and championship at the 1907 Calgary Exhibition. At the Win-

nipeg Industrial in 1907 he won first in class and stood reserve champion to Baron's Gem. At the Dominion Exhibition in 1908 he won as a three year old and was also champion of the show. Among the females with which most of our readers are more or less familiar we should mention Eva's Gem, Belle Rose, Baron's Lassie, Queen of the Waves, Baron's Sunbeam, Miss Gem of Hillcrest, Bishopton Queen, Baroness of Hillcrest, Hillcrest Blossom. The winnings of these mares at Canadian shows, both east and west, have been such as to give “Hillcrest” a great name for high class Clydesdale females. Other females which the western public are not yet familiar with are Formosa (imp.) by Royal Favorite, rising two years old; Sally Douglas (imp.) by Douglas Chief, four years old; Fashion Belle (imp.) by Fashion Plate, six years old; Hugo Queen (imp.) by Sir Hugo, three years old; Zena Carrick (imp.) by Royal Edward, two years old; Rose Powell (imp.) by Pride 3rd Kelnhill two years old; Sinnomah (imp.) by Fortune Still, three years old; May Ramsay (imp.) by Warlsby, two years old; Rose Marion (imp.) by Rozelle (imp.) two years old; Blencogo Maid (imp.) by Lothian Again, two years old; Lady Erica (imp.) by Dunure Castle, two years old; Jessie Hugo (imp.) by Sir Hugo, three years old; Lady May (imp.) by Pride of Bate (imp.) three years old; Floss by Knight of St Andreas (imp.); Hilda Brown by Brown James (imp.); Lady Wilson by Lord Lieutenant (imp.); and Maggie Lauder by Brown James (imp.). These mares, of breeding age are in foal to such horses as Everlasting, Acme King, Earl of Angus, Pride of Blacon, Garty Bonus and Ruby's Pride. Besides the mares mentioned above there are four very fine yearlings, all sired by Baron's Gem, and three filly foals, sired by Acme King.

We cannot more than mention the splendid string of stallions. The four year olds include: Equerry (imp.) by Baron's Pride, Baron Barsaloch (imp.) by Baronson and King's Favorite (imp.) by Royal Favorite. Lord Clinton (imp.) by Baron's Voucher is the single three year old in the stud. Two year olds number fifteen, as follows: Lord Lochiel (imp.) by Cairnbrogie Chieftan, Royal Baillie (imp.) by Everlasting, Lord Moray (imp.) by Sir Hugo, Imperial Pride (imp.) by Baron's Pride, Maintainer (imp.) by Baron Victor, Holystone (imp.) by Baron Beaulieu, Lunnoch Laird (imp.) by Revelanta, Baron Monkshill (imp.) by Rozelle (imp.), Buckley (imp.) by Hiawatha, Woodend Newstead (imp.) by Baron's Best, Stannock (imp.) by Allandale, Fortune's Bounty (imp.) by Everlasting, Duke of Mertoun (imp.) by Prince of Glock and Haplads King (imp.) by King Thomas (imp.). Mark Allerton (imp.) by Baron's Pride and Marquis of Queensbury (imp.) by Baron Winsome make up the yearlings. In addition to these there are five stud foals, one by Royal Baron, and the other four by Acme King. These were all bred at Hillcrest.

Prospective buyers should write to Taber and Plummer at Condie for their catalog of this splendid lot of animals and a day or two spent at the stables in looking over this lot will be well worth while.

Auction Sale of Percherons and Shires at Ellendale, North Dakota.

J. S. Johnson, the well known horse breeder and importer of Ellendale, North Dakota, is having a public sale of 30 head of registered Percheron and Shire stallions and mares at his stables in Ellendale on March 18. Ellendale is 40 miles north of Aberdeen on both the Milwaukee and the Great Northern Railways. The sale consignment will include 13 big boned stallions, two and one-half to three years old and weighing from 1600 to 2000 pounds; two yearling stallions; one four year old Coach stallion; and 14 Percheron mares from two to six years old and all bred. Here will be offered an opportunity of buying Percheron mares and stallions sired by the world champion Calypso. It will be a chance to buy single stallions, teams of mares or some of as well bred fillies as may be found in the

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The Worlds Greatest and Surest

Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Caustery or Firing. Invaluable as a CURE for

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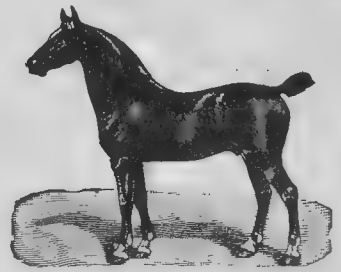
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The Accepted Standard
VETERINARY REMEDY

Always Reliable.
Sure In Results.



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THE BEST FOR BLISTERING.

I have used GOMBALT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success.
CHAS. MOTT, Manager,
Mayfield Stud Farm, Leesburg, Va.

CURED CURB WITH TWO APPLICATIONS.

Have used your GOMBALT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever.—DAN SCHWER, Evergreen, Ill.

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Second Importation

Percherons

Since Christmas

at "The Oaks"



To Arrive About March 15

Watch for them. They are good ones.

JNO. H. STOUT

Westbourne

Manitoba

States. Every horse is guaranteed sound and a breeder and they will all be sold to the highest bidder. Catalogues are now ready and may be had by writing J. S. Johnson, Ellendale, North Dakota. The sale is on Friday, March 18. See adv. of this firm on another page.

John H. Stout Away for more Percherons.

Jno. H. Stout, at "The Oaks," Westbourne, Man., has sold completely out of Percherons and is away after another shipment which will be at his stables about March 15. This will be the second shipment since the first of December. With the opening of spring right at hand there will be a still more active demand for stallions and all parties interested should not delay in making selections. See adv. on another page.

Good Sales at Craigie Mains.

A. & G. Mutch, proprietors of Craigie Mains, Lumsden, Sask., write us that they have been having good sales of Clydesdales the past few weeks. Mutch Bros. now have their importing stables in the town of Lumsden, Sask., second station north of Regina on the C.N.R. Prince Albert line. They are in a better position than ever to meet the large demands of their ever increasing trade in Canadian bred and imported Clydesdale horses. They have on hand now the largest number of horses that have ever been in the stud at Craigie Mains, the most of which have been imported from Scotland and nearly all being descendants of the world's famous Baron's Pride.

Gervase Kettlewell, of Davidson, Sask., purchased two first class three year old fillies. Last spring Mr. Kettlewell purchased the 2-year old stallion Sir Hugo, from Craigie Mains, a horse that was an easy winner at the summer fairs and now with the addition of these two mares the foundation for a good stud has been laid.

The Fairmede Clydesdale Association, Fairmede, Sask., sent three delegates to Mutch's stables to select a stallion and finally picked on Mahomet, (imp.), a very fine rising three year old sired by Dryden. Concerning him the Mutch Bros. write: "In choosing Mahomet, the Fairmede Association have secured one of the best colts that have ever passed through our hands. He is a grandson of Baron's Pride, with grand quality and is a nice goer." Scott Wildman, also of Fairmede, secured an excellent breeding horse in Sir Lyndoch, William Hewiston, of New Warren, Sask., has secured the splendid rising two-year old Esperantist (imp.), a Pride of Blacon colt and winner of first as a foal at Port William. Robt. Hewiston, also New Warren, bought Gay Lad, a good home bred fellow by that good horse Black Ivory, imported by Mutch Bros. three years ago, and out of Gay Jess (imp.), one of their show mares. M. A. Dutcher, Vegreville, Alta., got the three year old imported mare Pride of Delny. Her sire is Everlasting, grandsire Baron's Pride, and dam Baroness of Delny. J. H. Kimball, Magrath, Alta., secured the 3-year old King's Lictor, sired by Royal Edward, a horse used at the head of J. Ernest Kerr's great stud of mares. Her great grand-sire is Prince John. Besides the stallion, Mr. Kimball also bought three females, two coming three years old and a rising two, Verna Hope by Douglass Chief, Barbara Meikle by Marcellus, and Dorothy Sharp by Baron's Pride, respectively.

Edward Hodges, Magrath, Alta., picked 21 head of stallions, mares and fillies from the stables at Lumsden. This will constitute a fine lot of horses for Southern Alberta and Mr. Hodges should have little difficulty in selling them. The lot includes the 3-year old Oak Leaf by Baron's Pride, being a full brother to Van Horne's Lord Ardwell. Oak leaf is a stylish horse, a good Clydesdale with all that that means, and will prove a good sire at the head of Mr. Hodge's string of valuable mares. The other colts were sired by such strong breeding horses as Baron Borgue Benedict, Ascot, Blacon

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It is the **only** Roofing that has met the **test of time.**

There are upwards of 300 imitations and substitutes and they cost more in the end. **Only One Genuine.**



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It is the **only** Roofing that is made in **Red, Brown and Green.**

Before deciding on any Roof for any purpose.

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Fac-simile of the "Ruberoid Man" appears on the outside wrapper and the word "Ruberoid" is stamped on the underside of the fabric every few feet.

The Standard Paint Company of Canada Limited
Manufacturers, MONTREAL
DEALERS EVERYWHERE.

Sensation, Baron's Pride, Scottish Crest, and Black Ivory. Too much cannot be said of the mares which include Montrave Geisha (imp.), Baron's Princess (imp.), and Lady Harriett (imp.). Montrave Geisha is without a doubt one of the best mares ever imported to Canada. She was one of Sir Jno. Gilmore's show animals, on one occasion winning first at the Highland, and since being imported has won premium honors in both eastern and western Canada. Baron's Princess is one of the best mares ever owned by Mutch Bros. She has never been shown on account of having met with a slight accident while young. Lady Harriett has a couple of championships to her credit in Scottish show rings. The two year olds included Tarvus Poppy (imp.) by Cairnbrogie Chieftain, Fanny Lewis (imp.) by Netherlea, Francis Powell (imp.) by Baron's Pride, and Cissie Millar (imp.) by Gartley Recruit. Four first class

THE GREATEST OAT ON EARTH

Regenerated Abundance

"GARTON'S 1909 STOCK"

We purchased from The Garton Pedigree Seed Co. last Season 1,200 bushels of these wonderful oats and sowed on new breaking, and can now supply seed with Garton's original guarantee, viz., "Absolutely Free from wild oats or weed seeds."

This breed of oat won the champion sweepstakes prizes for Alberta, Saskatchewan and Manitoba in 1909, and again this season.

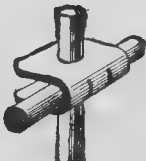
State quantity required, and we will quote you, f.o.b. Bangor, Saltcoats or Stockholm. We also have early Stanley Wheat and Red Fyfe Wheat.

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Take Your Pick of The Two Best

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Whether you want a Machine-made or a Field-built Fence, you cannot find equals to the Frost.

We'll send you a free booklet, describing in detail the Frost Woven and the Frost Field-built Fences.

We have figured out the real reason why so many Wire Fences in Canada rust about 12 or 15 years sooner than they should.

And we have also figured out the only method of Wire-making to overcome this vital weakness.

So we now Make and Galvanize our own Wire. No other exclusive Fence Maker in Canada does that.

Two-thirds of the life of a Wire Fence depends upon its Galvanizing. Yet in the very face of this, nearly every Fence made in Canada is Galvanized too thinly.

One reason is because Zinc costs four times more than wire.



The other that if most Galvanized Galvanizing off.

Because vanishing here permanent, easy, That scale is certain to chip off, and with it goes Mr. Galvanizing.

The Frost Fence is double Galvanized—not merely "coated." But it will not peel off. Because Frost Galvanizing is a part of the Wire itself.

You see, Frost Wire goes through three thorough "Cleansing" processes before it ever goes near a Galvanizing Furnace.

This positively removes every bit of grease and scale, and leaves the surface clean.

This double Galvanizing will endure the severest Canadian weather changes. It will fight off rust for 25 or 30 years.

The Frost Fence can be safely stretched tighter than any other Fence we know of.

reason is Fence were thicker, that would peel

heavy Gal cannot adequately to scale Wire.

Because Frost Wire is Annealed to the proper degree of temper. This makes it more elastic, and stronger, than any Fence in Canada.

But because the "Frost" degree of temper is a secret, no other Wire in Canada is tempered to withstand Canadian conditions.

That's why the Frost Fence is the strongest. We are anxious to prove this.

We are anxious to send you our free booklet on Fence, together with samples of the Frost Fence and Locks, postpaid.

This booklet tells all about Fence, and shows you how to buy the right kind for Canadian purposes. It's worth a lot of money to you. Send for it to-day.

Manitoba Frost Wire Fence Co.

Winnipeg, Man.

Frost Wire Fence Co., Ltd.
Hamilton, Ont.

"Frost" Fence

fillies were also included in this lot. One year ago Mutch Bros. sold Mr. Hodges 14 head of Clydes, among them being two first class three year old fillies which were retained. These together with this late shipment will make one of the best Clydesdale studs in Canada.

Holsteins for Winnipeg District.

Homer Smith, of Winnipeg, has just returned from the East where he purchased a car load of registered Holsteins from well known breeders in Oxford County, Ontario. Included in the shipment were also a number for W. M. Gibson, also Winnipeg. While in the East Mr. Smith attended the annual meeting of the Holstein Friesian Association of Canada which was held in Toronto on Feb. 10. He with Mr. Gibson were appointed representatives of the Association to the Winnipeg and Brandon fair boards.

Mr. Smith commenced breeding Holsteins two years ago with foundation stock from the well known herd of David Monroe. He now has some 20 head of registered animals with four or five cows in the Advanced Register. Mr. Smith has some good stuff for sale. He is building up a good herd and expects to leave for the East again soon for more animals.

Great Combination Sale.

A mammoth combination sale of Percheron stallions and mares is announced for March 23 at Sioux City, Iowa. The offerings will consist of 35 mares and 25 stallions, coming from the well known studs of H. G. McMillan & Sons, Rock Rapids, Iowa; P. W. Moir, Orange City, Iowa; W. H. Kerr, Bennington, Neb.; O. D. Hart, Lemars, Iowa; and Muirhead and Barr, Bradshaw, Neb. This will be a splendid offering and should be especially attractive to Canadians. Catalogs are now ready and may be secured by writing J. B. McMillan, Mgr., Rock Rapids, Iowa. See advt. on another page.

Each of the above breeders and importers have consigned a choice lot of animals to this sale. Lakewood Percherons have made a name for themselves that is scarcely less known on the other side of the water than in America. Under the management of Mr. J. B. McMillan, junior partner of Lakewood Farm, we predict the greatest success for the coming combination sale. Sioux City is easy of access from either Winnipeg, Brandon, or Moose Jaw. Remember the date, March 23.

Judges and Live Stock Meetings at Saskatchewan Winter Fair.

The judges for the Saskatchewan Winter Fair at Regina on March 22 to 25 have been announced as follows: Clydesdales, Robert Ness, Sr., Howick, P. Q.; Percherons, Prof. W. H. Peters, M. A. C., Winnipeg; Light Horses, Dr. A. G. Hopkins, Regina; Fat Cattle, Prof. D. A. Gaumnitz, St. Anthony Park, Minn.; Sheep and Swine, Prof. Peters; Sale Cattle, J. G. Barron, Carberry, Man.

The annual meetings of the live stock associations will be held during the week of the Winter Fair. The Sheep and Swine Breeders' Associations will hold their meetings on the afternoon of Tuesday the 22nd, the Cattle Breeders on the evening of the 22nd, and the Horse Breeders' on Wednesday evening. The day sessions will be alive with lectures and demonstrations interspersed between the live stock judging and the judging competitions.

Eight of the successful farmers of the Silver Spring district have purchased the celebrated Percheron stallion, Albany 45233, from the Carnduff Horse Co., Carnduff, Sask., and will travel him in the Silver Spring and Pilot Mound districts this season. This horse took the diploma in the open event at the Brandon fair in 1905.

Traynor Bros., Condie, Sask., are well sold down on Clydesdales and are away in the East after more. They expect to bring up a load of registered

mares in foal, and also a load of heavy drafters for the Vancouver trade. Besides these the shipment will also include a choice lot of stallions.

Law & Scott, Edmonton, Alta., have sold to Archie Warwick, Mannville, Alta., two very fine brood mares, one by Baron St. Clair by Baron's Pride, and the other by Dundrennan. These are mares of good breeding going into a new section of the West.

What One Small Grain Growers' Association has Done.

Mr. A. F. Mantle, of the Saskatchewan Department of Agriculture, in a recent letter to this office, writes us as follows:—

The following incident came under my notice while I was out on institute work recently; in fact, Mr. A. P. Stevenson and myself had the pleasure of judging at this seed fair and afterwards holding an institute meeting. It appeared to me to be worthy of some mention as tending to encourage a progressive and independent spirit among the farmers of rural districts far distant from organized agricultural societies. I find that farmers are apt to think that they can do nothing along educational lines without government aid in the form of a grant or bonus.

Some twenty miles northeast of Biefait, in southern Saskatchewan, is the settlement of Roseview, having the Glasston school as its centre. Here, at this distance from a railway, is a live little grain growers' association of some thirty members. Many of these men are Americans from the corn-belt States, and, while learned in all that pertains to corn, they were not satisfied with their knowledge of wheat, the growth of which has now become the head and front of their work. With a view to acquiring a better knowledge of what constituted good wheat, the members of this grain growers' association held a box social some two months ago. The boxes sold well, and some \$70 came to the treasury as a result. Having thus secured a grant of their own devising, they drew up a score card and determined to hold a seed fair and judging competition in connection with the institute meeting they proposed having in February. The Department of Agriculture gladly supplied judges and equipment for the fair. All arrangements were well carried out and a very successful fair resulted notwithstanding the fact that the weather at the time was far from favorable. It is safe to say that all who were able to attend enjoyed the function and profited by it. It is no less safe to predict that a larger and better seed fair will be held in the same building next winter and that the Roseview G. A. A. will be a bigger, stronger, more active and aggressive organization for having embarked on this line of work outside the accepted sphere of such bodies. Why should not more grain growers' associations in our western provinces undertake such constructive and educational work and finance it in a similar manner?

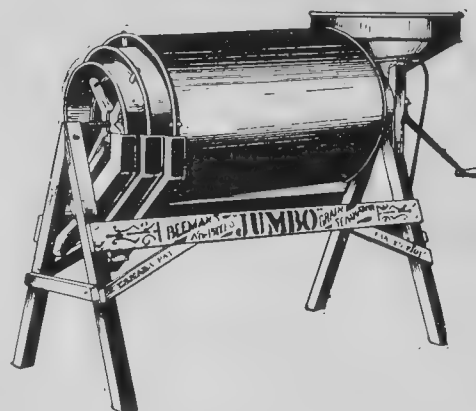
J. H. S. Armstrong, Irma, Alta.—"I am very well pleased with your paper and wish it continued prosperity for I think it a boon to the farmers of this western country."

The following is a list of Canadian patents recently issued through the agency of Messrs. Ridout & Maybee, Manning Chambers, Queen St., West, Toronto, from whom further particulars may be obtained:—W. J. Dossetter, spring grip attachment for dumb bells; J. S. Clarke, tires and rims for wheels; Parsons & Short, machine for shaping turbine blades; Leo. Lowenstein, fractional condensation of vapors; The Massey-Harris Co., Limited, centrifugal separators; A. C. Scarr, nut lock; Pollock Manufacturing Co., reproducers for talking machines; Friedrich Schnapp, weirs and the like; W. P. Wise, military equipment; C. Bastian & A. E. Salisbury, vapor are lamps.

Try the "Jumbo"

At Our Expense

NO CASH
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The greatest
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cessful Grain
Cleaner in the
World.



10 DAYS'
FREE TRIAL
Guaranteed
capacity 100
Bushels per
hour or one car
load per day.

THE NEW MODEL "JUMBO" GRAIN CLEANER

Is a scientifically constructed machine, it carries more screen surface, consequently does more and better work than any other make. It separates all mixed seeds and grains and its process is positively the most successful Seed Grain Cleaner ever invented.

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with every Social Comfort and Educational Advantage in the
Cream of America's Irrigated Fruit Lands
is assured to every investor in a lot in the district of

MATTAWA

We are now offering for the first time five and ten acre tracts—the first ever offered in this famous valley. It will most likely be the best bargain ever offered in these tracts as it is within three miles of the town of Mattawa: The land is guaranteed choice—not a rock in it, and costs only six dollars per acre to clear and plow it. Worth now, as we say, \$55, it will quickly become excellent value at \$300 per acre. Two big Irrigation Canals are now started in the valley, one railway into it and two others surveyed. It is the warmest early Pacific belt in the entire North West, and one of the few coming high-priced fruit districts for Winnipeg and the Canadian West.

We are now taking orders for these at \$55.00 per acre, half in cash, balance six and twelve months.

The Mattawa Power and Irrigation Co.

433 Grain Exchange, Winnipeg. Campbell & Wilson, Agents, Phone 2482

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Every local branch of a Chartered Bank has the full financial strength of the Head Office.

The Capital and Reserve of the Bank of Hamilton amount to FIVE MILLION DOLLARS. Total Assets are over THIRTY MILLION DOLLARS. All this stands as security for every dollar deposited for safekeeping in any local branch.

Farmers' Savings Accounts specially invited.
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Victor-Berliner.
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No streaks.

Even, lustrous colors that won't wash out or fade.

Colors 10c, Black 15c, at all dealers, or postpaid with

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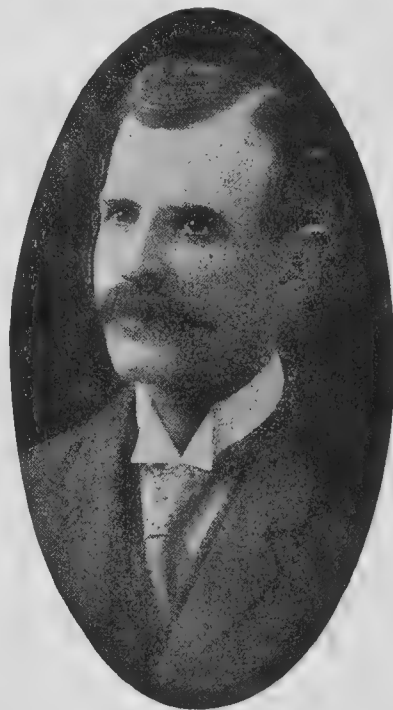
A Big Packer Deal.

Expectations are running high in Alberta in anticipation of a big crop development in that province as soon as the soil is in fit condition for the implement.

The Sub-Surface Packer Company have just disposed of seven of their machines—four 24 wheeled size and three of 20 wheel compass—to one farm in Alberta. This is probably the biggest packer outfit handled by one farm in the province and the company of agriculturists who are represented in the deal are certainly the largest farming concern in Southern Alberta.

New Western Manager for Gould, Shapely & Muir.

We present herewith the portrait of Mr. D. J. Taylor, who has recently been appointed as manager of a western branch of the Gould, Shapely & Muir Co., of Brantford, Ont., to be established at Winnipeg. Mr. Taylor is very widely known in the Canadian West in connection with the agricultural implement trade. In fact, his connection with the implement business dates from



1886, when he joined the staff of the David Maxwell Co. In 1889 he joined the Patterson Bros. Co., as general agent, remaining in their employ until he secured a position with the Cockshutt Plow Co., with whom he has since remained. On the occasion of his departure the citizens of Regina presented Mr. Taylor with a handsomely engraved gold watch and chain, at a joint meeting of the city council, board of trade and Wholesale Implement Dealers' Association.

Ruberoid Colored Roofing Patent Decision.

It is now unlawful to use any colored, except by painting, "flexible weatherproof prepared roofings" other than that made by the Standard Paint Company, New York. This is the sum of the decision, January 24, 1910, by Judge Ray, of the U. S. Circuit Court. The decision, about 10,000 words, is such a minute examination of the history of materials and processes that it is near to being a treatise on the art of roof-making. The two patents on colored ruberoid, dated November 22, 1904, cover both the product and the processes by which it is made. Both of these general claims are upheld with an enthusiasm born of exhaustive study: "The process pointed out in the patent which varies from the prior art was successful. The prior art was

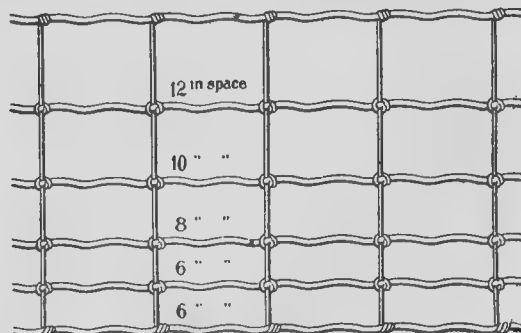
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March 5, 7, 8, 9, 10, 11, 1910

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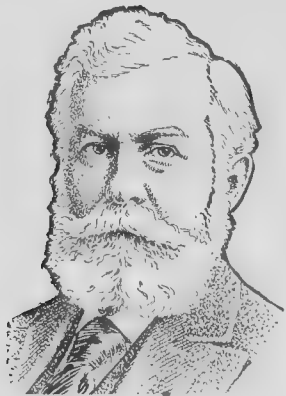
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Clipped horses dry off fast, rest well, and do more and better work.

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Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work, absolutely sure, write at once. ROYAL IMPERIAL SILVERWARE CO., Box 935, WINDSOR, ONT.

not. All the constituent elements of a product as a new article of manufacture may be old, as of course these were, but this product as a complete article of manufacture was new, and it was better than any that had gone before. I think the evidence establishes that the first successful colored roofing on the market was this colored rubberoid made in accordance with the claims of the patents in suit. They are pleasing and attractive in appearance to those who desire a colored roof and who use a roofing of this character. They are popular and have an extensive and increasing sale. It is shown that these roofings are durable and serviceable, and that the coloring is permanent." This colored roofing is also protected by patents in Canada by the Standard Paint Co. of Canada, Limited, and manufactured by them at Montreal.

Planet Jr. and Prosperity.

The farmer by virtue of his vocation is admittedly one of the most independent of the world's producers. In fact, most every line of trade is dependent directly or indirectly on the farmer. This has come to be truer than ever since the dawn of the new kind of farm implements which have worked such a revolution in farming methods toward increased production. These wonderful new implements, such as the Planet Jr. farm-and-garden-tools, have enabled the progressive market-gardener to treble his output and then double it again.

For instance, the No. 6 Planet Jr.—the newest combination hill and drill seeder, wheel hoe, cultivator and plow—does the work of six men. That means where a crop of certain size was formerly cultivated, six times the crop can now be taken care of with the same amount of labor in the same time, for this handy garden tool opens the furrow, sows any kind of garden seed accurately in drills or hills, covers, rolls down, and marks out the next row—all at one operation. In addition to this it is also a perfect wheel-hoe, cultivator and plow.

This is only one example of the increased efficiency the 55 kinds of Planet Jr. tools have given to this class of world's workers. So that when the depression of 1907 "depressed" almost every man of affairs, the Planet Jr. user was "there with the goods" just the same as usual, gathering in his profits and adding to his "rainy day" pile instead of drawing upon it. This ought to be an object lesson to every tiller of the soil, and prompt him to write to S. L. Allen & Co., Box 1107N., Philadelphia, Pa., for their new illustrated catalogue of 1910 Planet Jr. implements, which they send free upon request.

Make Your Barn Up-to-Date.

No better investment can be made on the farm than good fittings in the barn to aid in doing stable work. Perhaps no work is harder, or more disagreeable than the taking out of the manure. In eastern provinces now, in almost every good barn, they have a litter carrier. It has entirely displaced the wheel barrow for with it four large barrow loads of manure can be taken out of the stable at one time and done easily no matter how much mud or snow there may be in the yard as the litter carrier runs on an overhead steel track. When desired, the manure can be dumped directly into a wagon or sleigh and taken to the field and save any re-loading. In this way you will get the full value of the manure; nothing is lost by leaching or fire-fanging as is the case when left in a pile outside. Beatty Bros., of Fergus, Ontario, whose ad. appears on another page of this issue make a complete line of barn equipments, including, litter carriers, steel stalls, stanchions and hay carrier goods and will be pleased to send their catalogue with full information to any farmer who is interested in any of these lines. Their line of steel stalls and stanchions should suit this country admirably. There is no doubt, the stanchion is the best form of tie for

cattle. While giving them absolute freedom in lying down or getting up and in carding themselves, still, it keeps them in place in their stall better than any other form of tie, in that they are not able to move back or forward and consequently are kept much cleaner. Steel stalls are more sanitary and neater than any other construction and are practically everlasting and as they are not more expensive than the old style wood construction they should suit the needs of this country where good timber is difficult to secure. The "BT" Catalogue gives much information on the construction of a stable and as to how it should be laid out. The merits of a hay carrier for filling a barn are so well known that it is hardly necessary to mention them here. The "BT" line includes special sling as well as fork carriers, and slings to suit any style of rack. Any farmer building this year or with a good stable who has not these fittings should write and get Beatty Bros.' catalogue which should be of great interest to them. They are also pleased to answer any questions in regard to barn problems or as to the best layout for using up-to-date equipment. Their address is Beatty Bros., Fergus, Ont., Canada.

\$510.00 in Cash Prizes.

Names of Winners are Announced in "Poultry-For-Profit" Contest.

The names of prize winners in the unique "Poultry-For-Profit" contest, recently held by the Lee Manufacturing Company, of Pembroke, Ontario, have recently been announced. This contest is of more than passing interest to our readers—a fact fully demonstrated by the large number of entries made. Inaugurated with the idea of gauging the interest taken in poultry raising in Canada, and with the aim of showing the extent to which the industry may be developed—how profitable it may be made—the competition took the form of an offer of cash prizes aggregating over five hundred dollars to the most successful poultry raisers in the Dominion.

The individual prizes were not large, a point which makes the result of the contest of more interest than ever, showing, as it does, that the interest taken was not for the cash value of the premium but rather for the pleasure of advancing the cause of raising "Poultry-For-Profit."

In awarding the prizes, Prof. A. G. Gilbert, Chief of the Government Poultry Department at Ottawa, wrote the Lee Manufacturing Company as follows: "Herewith I beg to hand you the list of prize winners in the Peerless Poultry-For-Profit Club contest, in which your firm offered \$510, divided into 103 cash prizes for the most successful results in poultry-raising. I desire to first express my appreciation of the manner in which you so honorably carried out the arrangements made between us when I consented to act as judge of the contest, that you should not even suggest the method of judging or interfere in any way whatever with the awarding of the prizes. The winners have therefore been named on the merits of their work. I desire to express sincere thanks to Professor F. C. Elford, of Macdonald College, Ste Anne de Bellevue, Que., my friend and co-worker, for the assistance he so kindly granted me in the task of judging. I consider the competition a complete vindication of the stand I have, for years past, taken as to the almost absolute necessity of the incubator and brooder to the exigencies of all farmers or other poultry raisers. This contest effectually disposes of the carrying opposition as to artificial hatching and rearing."

The success with which these winners have met, effectually proves that it is possible to make poultry raising pay big money, provided it is set about properly. The Peerless outfit and the advice and help of the Peerless experts is invaluable to any Canadian poultryman.

The winner of the first prize in the contest was D. L. Boice, of Violet, Ont.,

HIGHEST FOOD-VALUE.

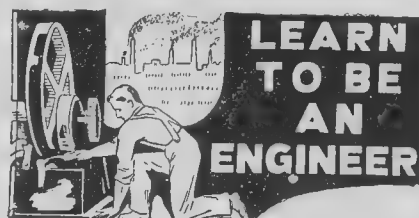
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In strength delicacy of flavour, nutritiousness and economy in use "Epps's" is unsurpassed.

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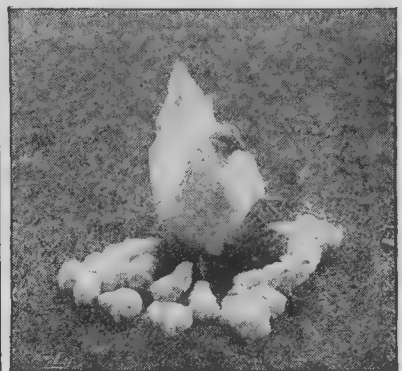


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We give course in Stationary, Traction, Gas or Gasoline, Marine or Locomotive Engineering. You may take any one or more of these as desired. Special instruction in Arithmetic included free of charge. Your fee is good until you pass your examination or take your diploma, and you are allowed all the time you need to complete the course—it costs no more for four years than for four months. Write for circular to day, stating in what particular branches of the work you are interested.

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who pocketed an even hundred dollars as the result of his excellent work. The second prize of fifty dollars was awarded to J. W. Russell, 313 North Norah Street, Fort William, Ont.; Jacob Whiting, of Workman, Sask., took the third prize of twenty-five dollars. Ten prizes of ten dollars each were won by the following: H. C. Whitton, Tremholmvile, P. E. I.; A. H. Graham, Hawthorne, Ont.; Oscar Petterson, Lac du Bonnet, Man.; Jas. Carmichael, Davis Mills, Ont.; Mrs. S. G. Irish, Sedgewick, Alta.; Mrs. Jas. Naylor, Arrow Park, B.C.; Geo. H. King, Korah, Ont.; W. S. Phillips, Macauley, Man.; Reuben Aylesworth, Bruce, Alta.; Mrs. J. Stewart, Dalmeny, Ont. Twenty prizes of five dollars each were awarded to: N. A. Hicks, Webbwood, Ont.; Walter O. Saunders, Port Hope, Ont.; A. S. Morsen, Bridgetown, P. E. I.; G. C. Caston, Craikhurst, Ont.; Jos. Dietrich, Wanda, Alta.; Wm. G. Bruce, Valley, Sask.; Mrs. S. E. Wrigley, King Edward, Man.; Frank Bryant, Alma, N. S.; Mrs. E. A. Biddle, Enfold, Sask.; J. J. Hales, Chatham, Ont., P. O. Box 704; Mrs. M. B. Weatherston, Strathclair, Man.; F. W. Fane, Beaver Lake, Alta.; W. G. Lett, Eganville, Ont.; Miss A. E. Fauner, Lamerton, Alta.; Ernest Hooper, 649 Clark St., Edmonton, Alta.; Mrs. S. Saunders, Smith's Falls, Ont.; Geo. M. Killam, Elgin, N. B., P. O. Box 53; W. R. Danby, Antler, Sask.; Miss M. McMaster, Smithfield, Ont.; Arthur Poppleton, Edmonton, Alta. The twenty winners of the three dollar prizes were: Geo. A. Peart, Guysboro, N. S.; Jos. Steele, Villiers, Ont.; Mrs. T. Grayson, Forget, Sask.; A. Longley, Paradise, N. S.; A. C. Crowthers, Red Willow, Alta.; A. F. Merrill, Bawlf, Alta.; S. G. Jones, Round Hill, Greenwich, N. B.; Mrs. H. E. Hurst, Adair, Sask.; Frank Wright, 630 3rd Ave., W. Calgary, Alta.; Mrs. E. Seymour, Manitou, Man.; Roy Kendrick, Reston, Man.; G. N. Rost, Caledonia, N. S.; Mrs. W. Gilbert, Minburn, Alta.; M. C. Armstrong, Mount Albert, Ont.; Mrs. J. G. Scott, Minto, Man.; Jas. Buckner, Orrville, Ont.; W. Bushy, East View, Ottawa, Ont.; Mrs. J. A. Harris, Tramore, Ont.; Geo. H. Brady, Ranfurly, Alta.; O. E. Lowes, Moose Jaw, Sask. Twenty-five prizes of two dollars each went to: J. T. Lacey, Swift Current, Sask.; Mrs. J. E. Baker, Springhill, Ont.; Chas. McCurrah, Merton, Ont.; H. P. Woodburn, Cummings Bridge, Ont.; W. A. Hill, Wolseley, Sask.; Mrs. W. F. Fisher, Korah, Ont.; E. R. Plummer, Lloydminster, Sask.; Mrs. A. Collins, Green Ridge, Man.; J. Anderson, Bromley Lint, Ont.; J. Laurens, Willow Range, Man.; Martin Varseveld, 565 Du'uth Road, Port Arthur, Ont.; J. H. Bleeker, Frankford, Ont.; W. H. Ziegler, Manora, Sask.; Douglas Brenton, Corbyville, Ont.; Wm. Steele, Valleyfield, P. Q., Box 58; Mrs. F. G. Whittingham, Edgeby, Sask.; John Pearson, Sidlane Ranch, Millarville, Alta.; J. T. Marcey, Barrie, Ont.; Mrs. Rankin, Vermilion, Alta. Mrs. A. Brigg, Creelman, Sask.; Mrs. Frank Holder, Albert Canyon, B. C.; Harry Parish, Wapella, Sask.; A. R. Hoag, Seven Persons, Alta.; L. Olaf Pfrimmer, Myrtle, Man.; C. M. Griffiths, Cheadle, Alta. Twenty-three prizes of one dollar each were awarded to: Mrs. Alex. Fraser, Merivale, Ont.; Mrs. J. Sharpe, Minnedosa, Man.; E. S. Blanchard, 32 Curtis St., Brantford, Ont.; Jno. Thompson, Rupert P. O., Que.; Mrs. A. Shultz, Green Ridge, Man.; John King, Adamsville, Ont.; Mrs. Wallin, Glen Avon, Sask.; Alex. McDonald, Oakland, Man.; E. S. Robinson, Beachburg, Ont.; Mrs. Thos. Hill, Norgate, Man.; Mrs. Jno. Doran, Chrysler, Ont., Box 101; Thos. Bishop, 84 Russel Ave., Ottawa, Ont.; Jas. H. Shaw, 1222 7th Ave. E., Calgary, Alta.; Peter C. D. Unruh, Waldheim, Sask.; Geo. W. Goudie, 64 Wellington St., Hull, Que.; Mrs. T. A. Bowes, Quincy, Sask.; Mrs. J. W. Brown, Benito, Man.; O. Skappel, Wilkie, Sask.; L. A. Gregoire, St. Boniface, Man.; W. H. Emerson, Eyebrow, Sask.; Wm. Knox, 318 Robertson St., Fort William, Ont.; P. Holder, Summerland, B.C.; J. G. Hodge, Macleod, Alta.; Helen Olive Summer, Riviere que Barre, Alta.

On request, our readers can secure the full text of Prof. Gilbert's letter that accompanied his decision, together with an invaluable free book, "When Poultry Pays." We would advise those of our readers who are interested in increasing

their profits from poultry raising to write for this interesting literature to the Lee Manufacturing Company, Ltd., 416 Pembroke Street, Pembroke, Can.

The Empire Cream Separator Company have moved their Winnipeg offices to 230 Princess street.

The Manitoba Windmill and Pump Co., Ltd., of Brandon, has issued a little book called the "Practical Gas Engine," and will be pleased to furnish one of these to any one making application for it. They also say: "If they will only follow it in the selection of a gasoline engine it will protect their interests, and, needless to say, we would be glad to be the people to sell them an engine."

The following is a list of Canadian patents recently issued through the agency of Messrs. Ridout & Maybee, Manning Chambers, Queen Street, West, Toronto, from whom further particulars may be obtained. G. W. Mohrstdat, extension ladder; Konrad Schwan, apparatus for engraving hollow articles; W. G. Merrall, baling press; D. H. McGeough, spring mattresses; Massey-Harris Co., Limited, centrifugal separator bowls; Atkinson Bros., potato peeler; J. T. Turnbull, acetylene generator; W. H. Morgan & J. Densley, manufacturer of gas, Max E. Eggert, acetylene generator.

In the Superior Court last month His Honor Justice Delarimer rendered a judgment in favor of Bovril, which is of great interest to all dealers in, and manufacturers of trademarked proprietary articles. A certain firm of confectioners had been giving their customers various brands of beef extract when asked for Bovril, and this being proven, His Lordship gave judgment restraining them substituting in the future, and condemning them to pay damages to the Bovril Co., and also all costs of the action, which would be a very considerable amount. The court thus rules that it is illegal for any dealer when asked for a certain article to mislead his customer by handing out some substitute and moreover establishes that the manufacturer who can prove such a case has recourse for substantial damages. The judgment is apt to have far reaching effect in preventing substitution in all goods sold on a name or trade-mark.

M. Allen, Middle Lake, Sask., writes: "You may rely on my power to try and induce more of my neighbors to become subscribers to The Nor'-West Farmer as I recognize the fact that with more subscribers a larger and better paper will be the result; so it's good luck to your journal and may it ever lead the way."

High-Grade Pianos

At Enormous Reductions

Every piano in stock must be sold before we move to our new building, corner Portage Ave. and Hargrave St. We are offering unprecedented bargains in many lines of high-grade pianos. The Heintzman & Co. pianos, however, will not be reduced, as these famous instruments are always sold at regular prices.

Our Removal Sale

is proving the most successful in the history of this store. Besides the values offered in new instruments, we have a number of second-hand pianos which we are offering at almost give away prices. Write for list of bargains.



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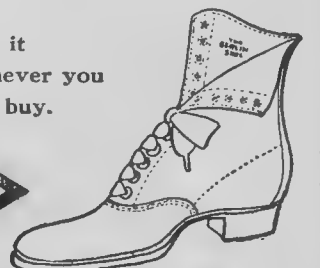
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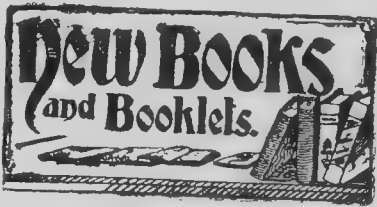
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For 41 years, the leaders in style, comfort and wear.
More of them sold than all other makes combined.

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Manufactured by The Berlin Felt Boot Co. Limited, Berlin, Ont.



Standard Blacksmithing

"Standard Blacksmithing, Horseshoeing and Wagon Making," by J. G. Holmstrom, author of "Modern Blacksmithing," is a rational treatise on horseshoeing and the anatomy of the foot of the horse, suited to the demand of horse raisers, veterinarians, farriers and the amateur horseshoer. Among the many interesting subjects treated, are the elementary pages devoted to placing of anvil, correct and incorrect methods of sledge swinging, the use of blowers, the draft forge, the forge for heavy work, method of pointing a rod, various methods of welding, including the butweld, jump-weld, T-weld, and showing the correct and incorrect methods.

The details of making tools and their use is covered in a very interesting and thorough manner.

The subject of horseshoeing is covered fully, including the anatomy of the foot, the various kinds of shoes used for different purposes, how to fit, the use of sideweight, methods of preventing interfering, and cross-firing, how to test a hoof, diseases and how treated, and many other interesting as well as instructive details, which are all of particular interest to the farmer.

This book is published by the Webb Printing Company, St. Paul, Minn., and can be furnished at \$1.00 per copy. Contains 212 pages; is profusely illustrated; bound in neat cloth cover. Copies can be procured from this office at publishers' price.

The Management and Feeding of Cattle.

By Prof. Thomas Shaw.

The place for this book will be at once apparent when it is stated that it is the first book that has ever been written which discusses the management and feeding of cattle, from the birth of the calf until it has fulfilled its mission in life, whether on the block or at the pail.

The twenty-one chapters contained in the book dwell upon every phase of cattle production under arable conditions. The proper food and management for the calf, whether reared on the dam or by hand, are given in minute detail. The care and food suitable for cattle from calfhood on to the producing period is discussed in all its phases.

The book follows beef cattle during every phase of the finishing period, whether finished as baby beef, or matured on pasture, or in the stall, and it follows the animal until final disposal at stock yards. It treats of every phase of the management and food suitable for cows, summer and winter, to whatever class they may belong, and from the time of the first conception until they are sent to the block.

It discusses the management and food suitable for bulls. It dwells upon the selection and fitting of cattle for the fairs; upon the protection suitable summer and winter, and upon the insect pests which prey upon cattle, and the diseases to which they are subjected, and the best known methods of dealing with these.

Such a book, in the absence of any other in its line, should be indispensable to the student of the agricultural college and to everyone who keeps cattle, howsoever or wheresoever he may be situated.

The book is handsomely printed on fine paper, from large, clear type, and is profusely illustrated, containing 496 pages, 5 1/2 x 8 inches, and is attractively bound in cloth. Price, net, \$2.00 for which amount it may be obtained from this office.

Seed Selection as Practiced in Europe with Wheat, Oats and Barley.

Paper by Geo. H. Clark, Seed Commissioner, Ottawa, before the Sixth Annual Convention of Canadian Seed Growers' Association.

Prior to 1906 I frequently took occasion at farmers' meetings and elsewhere to state my belief that by continued selection from year to year of the best heads of wheat, oats or barley, from the best and most vigorous plants, the productive capacity and quality of these grains, and also the strength of straw and its rust resistance, could be gradually but materially improved to the benefit of the farmer. I have not changed my opinion as to the principle; but, from a study, year by year, of the results of selection by members of this Association, followed last summer by an opportunity to see the work of experts who have devoted the greater part of a lifetime to a study of plant improvement, I have modified my views as to the extent to which improvement may be made by mass or multiple selection, which is the principle of selection that is embodied in the constitution and instructions issued by this Canadian Seed Growers' Association.

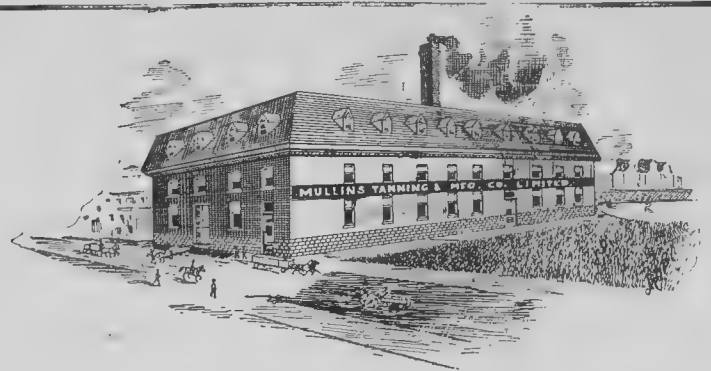
Excellent Results from Mass Selection.

We cannot expect the farmers in the different parts of Canada, who are making a specialty of growing and selecting seed grain, to compile accurate records that could be used to advantage in support of an argument in favor of mass selection. But I have had occasion to visit and inspect the work of many of the prominent seed growers, and, more frequently, to discuss with them the progress they have made. Fully 85 per cent., I should say, of the farmers who have been doing this work know full well that the crops they now have, as the result of several years' selection, are more uniform in character and capable of giving larger yields of grain per acre than the crops from unselected seed of the original stock that is commonly available for comparison on adjoining farms. Many of those farmers who commenced with the common kinds and varieties of grain, which had been grown by them in their district for many years, obtained what might be justly called excellent results as the reward of the first three years of careful selection.

Improvement by Selection is Limited.

Since 1906 the observations which I have been able to make, and a study of the work that has been done in other countries, have gradually led me to the opinion that the success of our seed growers who are doing the work of mass selection with varieties of wheat, oats or barley which they formerly grew, has depended, to a greater extent than some of us believed, on the care exercised by them when making their first selection. If in making their first selections they picked one or more heads from plants of outstanding merit, then by degrees their process of further selection would be likely to increase those specially desirable plants which they had by their first selection introduced into their breeding plot. If, however, on the first selection they were not so fortunate in collecting heads of outstanding individuals of merit, then their results since that time have afforded them less encouragement.

The system of mass selection now followed with cereal grains by members of the Canadian Seed Growers' Association has, until quite recently, been adhered to by German seed growers. During my visit to them last summer, I took occasion to outline the methods employed by the members of this Association to different men whom I met and who were engaged in the work to plant improvement. They all seemed to be thoroughly familiar with the plan and the principle it embodies and several whom I met are continuing with that plan in a modified form. Nearly all of them have been influenced by, and are now adopting or incorporating into their methods, the principle that



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If you have Hides or Furs we can tan them by expert workmen. Don't sell your hides if you want a robe made or harness leather. Our Custom tanning department is unexcelled. Ask for our lace leather, which we guarantee; also our raw hide halters. See they have our tag on, as our guarantee goes with them. We replace any that can be broken—not responsible unless carrying our tag.

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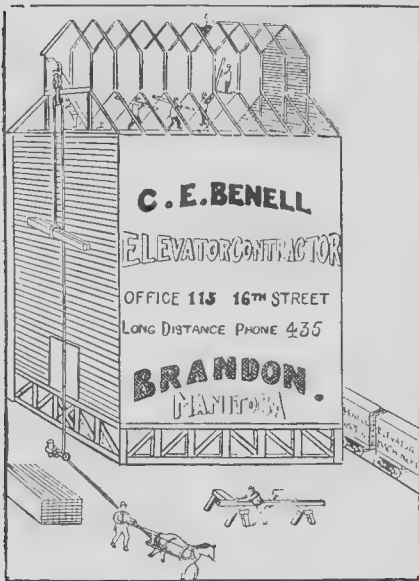
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BRANDON, MAN

has been so effectively applied in the improvement of crops by Prof. Hjalmar Nilsson at Svalof in Sweden, whose methods of work I desire to present in this paper. I will read directly from transcribed notes I made at Svalof while in conversation with Prof. Nilsson.

Svalof (Sweden) Experiment Station.

Svalof is situated an hour and a quarter by train north of Malmo. The principal experiment station in Sweden, which is under the direction of Prof. H. Nilsson, is located at Svalof. The institution is a private one but is supported by the government of Sweden, the agricultural societies, subscriptions of members and some slight revenue as follows:—

Swedish Government	Kr. 40,000	\$10,000
Agricultural Societies	20,000	5,000
Swedish Seed Company	10,000	2,500
Members Subscriptions	5,000	1,250
Revenues	5,000	1,250

Total Kr. 80,000 \$20,000

Cost of scientific building, Kr. 300,000; 1 kroner equals 27 cents.

The scientific staff is composed of Prof. Nilsson, five specialists and their assistants, and laborers. The scientific grounds include about 30 acres (15 hectares), but the staff makes use of any areas required by them to grow isolated plots on the grounds of the General Swedish Seed Company which comprise about 5000 acres, 1,500 acres of which immediately surround the scientific grounds.

The organization of the scientific

heaviest weight per machine test were set aside for improved increase.

After six years he found that, as compared with the original non-selected and impure stock, he had increased the yield, due, he states, to the elimination of undesirable forms of weakling plants; but very little, if any, increase in yield was secured after the first two or three years.

As to the main characteristics of the plant, including strength of straw, immunity from rust, improvement in quality of grain (except because of the undesirable mixtures), and earlier maturity, no improvement whatever had been made as compared with crops from the original stocks.

Collateral tests were made with Chevalier barley, by using only the heavier seed from the centre of the ear or spike.

His unalterable conclusion, drawn from an immense amount of careful work in this plan of selection, was and is that the plant can not be forced, in a way, to alter its main characteristics by the adoption of any practices at present known. This was disappointing to the Svalof staff, especially because the farmers of Sweden had been promised by Prof. Nilsson's predecessor that, as a result of their financial support, he would in a few years be able to provide them with varieties of grain far superior to the common sorts then generally grown and especially with what was most needed, varieties of grain with stronger straw, and this was to be secured by selection alone.



Aged Shorthorn Cows, Provincial Exhibition at Regina, 1909

staff at present is as follows, as to their work:—

1. Specialist for barley, peas and vetches.
2. Specialist for wheat and oats.
3. Specialist for grasses and clovers.
4. Specialist for potatoes.
5. Specialist for rye.

Provision is made for enlarging the staff to include ten specialists, each of whom will give all his attention to the improvement of one particular crop.

In addition to the station at Svalof, where the principal work is done, stations for test plots and further scientific work are maintained at 5 degrees north (near Stockholm) and another ten degrees north, which is at the northern part of Sweden. These sub-stations are in charge of assistants to the member of the principal staff at Svalof, who visit them frequently for the purpose of working out the best selections of the various crops for the districts represented by the stations.

Results of Mass Selection at Svalof.

Prof. Nilsson, as a trained botanist, worked as a specialist for several years under the direction of his predecessor. His work from 1888 for six years was based on the advantages of selection alone, so called "mass selection." Large heads were picked by hand and by the use of an automatic appliance, the heaviest were set aside and used as improved seed. From these, only perfect kernels, showing good quality, were taken, the object of the selection being to secure stronger straw, earlier maturity, greater immunity from rust, as well as increased yield.

Observation taught him that plants having not more than three stools ripened more uniformly. These therefore were selected, care being taken to keep the plants uniform in characteristics. Only the primary head was selected and of these, only those of

Selection Based on Individual Plant.

In 1890 and 1891 he had selected in the open fields in different parts of Sweden 1,000 or more individual barley plants of seeming merit. He sorted them into three groups according to apparent type and dibbled the seed into plots. The resultant crop from each type proved to be a motley collection of individual plants, markedly not uniform in many important characteristics, as maturity, stooling, strength of straw and rust.

In 1892 Prof. Nilsson commenced to base his improvement on the individual plant of outstanding merit, considering a combination of desirable characteristics.

The principle work, the most difficult task, is to locate and separate out the best individual. Prof. Nilsson and his staff spent much time in patiently searching in the common grain crops throughout Sweden for individual plants of superior qualities. These he calls "mutants," or sports that will increase true to type, mostly, he thinks, due to natural cross-fertilization, which occurs in nature but rarely. He has found such sports, the type of which were not fixed but would continue sporting in a manner quite similar to the product of artificial crosses, and under conditions of growth whereby the plant so located as a sport must surely have been produced by natural cross-fertilization. To a trained specialist, who devotes his entire attention to the study of one, or at the most, three kinds of crops and their improvement, the occurrence of mutants in ordinary field crops is quickly observed. They occur in relatively large numbers, but exceedingly few of them are worth transferring to trial plots for comparison and further study. These trial plots lead up to discarding thousands of the individual mutants that were elected and retaining but an occasional one. The cereal crops of the south of Sweden are largely traceable to these mutant individual plants that were discovered,

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Musk rats, winters	.60	.50	.55	Kitts 15c.	
Weasels	.80	.60	.30		

All other furs remain unchanged from our circular of November 1st. Please ship furs per express or mail if in small parcels. Hides have again declined, and we are now paying 9 cents per lb. delivered here.

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SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS.

ANY person who is the sole head of a family or any male over 18 years old, may homestead a quarter-section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price \$3.00 per acre. Duties—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

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W. W. CORY,

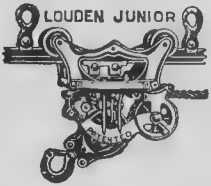
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isolated and increased by Prof. Nilsson and his efficient staff.

Prof. Nilsson frankly states that although he has also faithfully followed the work of artificial cross-fertilization since 1904, the product of his labors in that work has thus far been small and the outlook not hopeful when compared with the method of searching for and making use of those individuals that already exist in their excellence and have to some extent proved their superiority on the soil and climate where they are needed. He is, however, by no means discouraged with his work of crossing artificially. That will be continued by him and his staff as a work of secondary, though of much, importance, a work worth doing well on the chance of constructing in one individual, characteristics and qualities not found in available mutants.

The mutants discovered as the result of persistent search, as well as the individual plants that result from crossing artificially, after the type has been fixed, are each planted in a drill. The rows—each row representing the product of a single plant—are seven inches apart and planted to correspond as nearly as possible to field conditions, both as to soil and thickness of seeding. From the crop so produced, it is ascertained whether the type in each row is stable and also which of the individual rows have produced a progeny most nearly to the ideal desired. The few superior rows of plants are then increased on larger plots for further comparison and estimate as to yield. All the plots were completely surrounded with the strong-strawed variety of rye of dwarf habit of growth.

One or more of the most promising of these increase plots are again sown on still larger plots, also surrounded by rye, from which larger plots, more accurate determinations are made as to yield, strength of straw, quality of grain, rust resistance and maturity. Collateral tests are also made on lighter soils near Malmo and at the sub-stations 5 and 10 degrees north.

Our farmers who have been making a specialty of growing and selecting seed wheat, oats or barley would no doubt welcome any modification in the regulations of this Association that could relieve them of some of the careful work that is now required of them at a busy season of the year. Perhaps very few of them would take kindly to additional work such as Prof. Nilsson is doing. But I would suggest that this Association gradually incorporate into

its regulations the best part of Prof. Nilsson's method. I would strongly advise that the Association undertakes, so far as it may be able, to provide members, particularly new members, with the best possible foundation stock that has been produced from an individual plant of outstanding merit.

My remembrance of that old adage, "Prove all things, hold fast to that which is good" precludes me from releasing growers of registered seed, under our conditions and careless practices in handling cereal crops in Canada, from the system of continued selection from year to year. To maintain the purity of variety and type, if for no other reason, the breeding plot, or "hand-selected seed plot" should be maintained. If, as Nilsson and other European breeders contend, the nature and amount of variations from an individual plant is so small from year to year, that even specialists are scarcely able to take advantage of it to secure further improvement, then this Association might very well allow its members who are growing wheat, oats and barley to take their crop from their hand-selected seed plots into their barns and select from the sheaf on wet days and thresh by hand enough good pure seed to sow a quarter acre, or even a two or three acre plot, which should be continued from year to year as a base of supply of pure seeds. That would relieve seed growers of their principal excuse for not continuing with the selection according to the present requirements.

It seems to me, and in that particular I think I have expressed myself at the last two annual meetings of this Association, that the work of isolating these individual plants of merit can best be done by men who spend all or nearly all their time in a study of the characteristics and capabilities of these plant units of one or two kinds of crops. It is true that there are some farmers who are now making a specialty of growing seed and who not only have the ability but will find the time and adopt the proper methods to produce new sorts from individual plants of merit which they may discover. But this is a work which our farmers have a right to expect of the experts who are employed by the Federal and Provincial Governments or other institutions.

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The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable for prosecution.
FREDERICK TORRANCE, Registrar



Wheat.

The following special letter to the Nor'-West Farmer, under date of March 3, gives a very careful review of the grain situation since our last issue:

In our last review of the wheat markets, dated Feb. 18th, we stated that the American markets had come under the influence of reports of damage to the winter wheat crop in some districts, principally in the state of Kansas, and that these reports had started in the nick of time to revive the markets which were becoming dull and slow. The damage was caused by freezing and thawing. In the last two weeks a steady and insistent continuation of these damage reports has come from the states of Kansas, Missouri and Nebraska. These have been reiterated day after day until to many inexperienced people it might seem as if the whole U.S. winter wheat crop was in danger of total failure. Outside of the three states mentioned above, however, there have been practically no reports of damage as yet. There is more or less crop damage every year, and a certain percentage of the acreage under winter wheat is plowed up every year owing to winter killing, and it is probable that the amount of crop to be abandoned this season will not be more than an average amount. The area planted to winter wheat in the U. S. last fall is by the Government figures estimated at 33,483,000 acres. The average amount of winter wheat acreage plowed up or abandoned during the last ten years has been 8.5 per cent. per year. Applying that percentage to this year's seeded acreage would leave 30,687,000 acres to come to harvest. The number of acres harvested last year (1909) was 28,330,000 acres, and the final estimated yield 446,366,000 bus. People have short memories for general occurrences which have passed at the distance of a few months. Last year during February reports of crop damage began coming from the southwest and especially from Kansas. By the end of February sensational claims of damage came from Kansas, and in the first week in March damage reports came from every part of the winter wheat growing districts. Many well posted people were positive of 25 to 35 per cent. damage caused by freezing and thawing and high winds. After that, up till May, the weather was often harsh and ungenial and spring was late, and yet on a harvested area of only 28,330,000 acres (over 5,000,000 acres less than planted last fall) the yield was 446,366,000 bus. Thus the conclusion can be drawn that the crop can stand a lot of killing at this time of year, and still come to harvest with a good yield. This season, besides increased acreage, the winter wheat crop was planted under very favorable conditions and made good growth before going into winter quarters. The Government estimate on the condition of the crop on Dec. 1st, 1909, was 95.8 per cent. against 85.3 per cent. for the previous crop at corresponding date. Taking the acreage planted, viz., 33,483,000 acres and the condition of 95.8 on Dec. 1st, 1909, a probable yield of 560,495,000 bus. is indicated, which if realized would be by a long way the largest winter wheat yield ever raised in one year by any one country the world over. With the increased acreage, and only a normal loss by winter killing, only a wide-spread calamity will prevent the U.S. raising a record crop of winter wheat.

Two weeks ago the influence of the first damage reports caused an increase in activity in the speculative markets, for many who had sold short for future delivery became anxious to buy in wheat to cover their contracts, and others believing that substantial advance in prices would follow on account of the damage reports, bought freely for investment. All this buying, of course, caused prices to advance, but

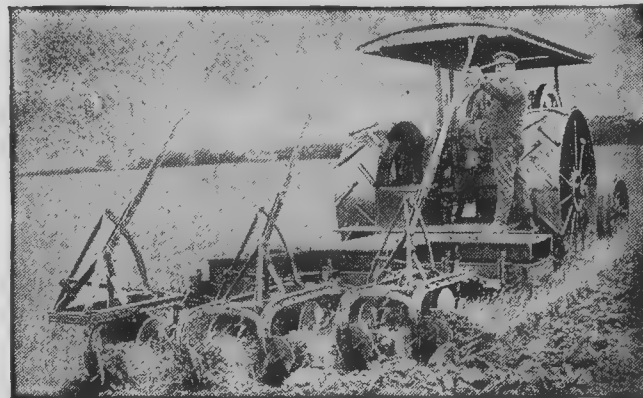
INTERNATIONAL TRACTORS IN PLOWING CONTESTS

Not for the prizes involved, but to establish beyond question in the agricultural world the superiority of International tractors, we entered the many important plowing competitions held in America and Europe during 1909. Victory after victory for the International was the result. At the exhibition at Amiens, France; at Winnipeg, Manitoba; at Brandon, Manitoba, and at Aurora, Illinois, International tractors left the field victorious in all instances.

These demonstrations of superiority in plowing and hauling contests are duplicated every day in agricultural field work. For instance, a 20-horse power International tractor plowed 1640 acres in one season in the Province of Saskatchewan. Because of its simple, practical, correct design, the International tractor turned over the regulation number of acres every day without any mishap.

If you buy a tractor, do you not want an absolutely dependable tractor that will plow the maximum number of acres day in and day out on a minimum fuel consumption?

The practicability of International tractors cannot be questioned. The engine, the source of the power, is not an untried engine. It's the I H C engine which has been on the market for years, tested under



every conceivable condition and never found wanting. The mounting is the best that brains and money can devise, and the principle of power transmission from the engine to the main drive wheels is the principle used so successfully for years on the big, powerful steam tractors. You see there isn't an experimental feature about International tractors.

International tractors are bringing about a revolution in the methods of tilling. They are bringing a day of greater possibilities for the farmer—increased profits and freedom from slow, hard, tedious work. These tractors are equally serviceable for hauling purposes and delivering power from the belt.

Besides International tractors, the I H C line includes general purpose gasoline engines from 1 to 25-horse power, vertical and horizontal, portable and stationary, adapted for all farm work.

It will be of considerable advantage to you to call on our local agent for catalogues and full information.

Write International Harvester Company of America at nearest branch house for these today.



CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

INTERNATIONAL HARVESTER
COMPANY OF AMERICA
CHICAGO (Incorporated) U.S.A.

Trees, Shrubs and Hardy Fruit Trees

WE OFFER THIS SPRING

Growing In our Nurseries here in Brandon
23,000 Evergreens—Spruce, Cedar and Pines.
50,000 Maples—2 to 8 feet; just what you want to plant in avenue or windbreak.
100,000 Russian and Laurel Willows.
12,000 Poplar.
Shrubs and Hardy Fruit Trees—Apples, Crabs, Plums.

Reliable Seeds

You will make no mistake in buying our reliable seeds. We make no false statements with reference to the seeds we offer. There is no seedsman growing in Western Canada even one-tenth of the garden or field root seeds offered. We offer as many Western grown seeds as any Canadian Seed House.

25 Years' Experience Testing and Growing Seeds

We offer such varieties only as can be relied on to give good results in this climate. We are sole Western Agents of Sutton & Son, Reading, England.

SEED POTATOES

We have in our cellars, Two Thousand Bushels of such variety as Bovee, Northern Rose, Early Six Weeks, Sunrise, etc., at Moderate Prices.

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Our Greenhouses are heavily stocked with Ferns, Palms, House plants, etc., etc.

Write for our Catalogue.

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BRANDON

Estb. 1893.

When writing advertisers please mention The Nor'-West Farmer.

Well Drilling and Boring Machinery

For Catalog write to
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This Beautiful Bracelet Free

This heavy gold-plated adjustable bracelet with embossed pattern. Can be adjusted to any size required and is made in fine roll plate finish. We give it positively free for selling 20 packages of high-grade Easter post cards at 10c. per package. Post cards are all printed in colors and gold. Each package contains 6 cards. Write to-day for post cards and when sold send us the money, and we will send the Bracelet.

THE WESTERN SPECIALTY CO., DEPT. F, WINNIPEG, CANADA

30 DAYS FREE TRIAL

It cleans from one to three acres of ground a day. It does the work of 20 men. Costs but 5 cents to remove a stump, even where roots run 20 ft. deep.

The Smith Stump Puller

We want one of these machines on every stump or timbered farm in the country. Write today for catalog J 21 and free trial offer.

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WRITE FOR BOOKLET, CIRCULARS TERMS ETC.

FETHERSTONHAUGH & CO.
GERALD S. ROXBURGH, A. St. Resident
15 Traders Bank Bldg. WINNIPEG

the advance did not go further than from 2½c. to 3c., because while the damage reports were a very strong feature in themselves, experienced and conservative traders, knowing that it would take growing weather to reveal the amount of damage, or perhaps on the other hand to, in a great measure obliterate it, were not carried away by the superficial excitement, and hence the lack of bullish co-operation on the part of traders has prevented more than a moderate advance, and even the advance that has been has practically been lost in the last two days under a partial cessation of the damage reports, together with favorable change in weather conditions, so that at close of markets to-day prices for cash wheat, or early delivery, are practically the same as a week ago, but in the U.S. markets the more distant futures range about 1c. over two weeks ago, because the damage reports had more effect on the price of the coming crop than on wheat for immediate delivery. In our Winnipeg market prices for cash and futures are down ½c. all round, as compared with two weeks ago, after being 2c. higher in the interval. Besides the effect of the uncertainty of the extent of crop damage, on the majority of conservative traders in the U.S. markets, the general circumstances at present pertaining to the world's breadstuffs situation are quite against active markets and advancing prices for wheat.

We wish we could write as optimistically regarding the prospect of prices in the interest of our western grain growers, as we were doing last year at this time, but the situation is quite changed, and present prospects, in our judgment, are likely to continue to change in the direction of moderating prices of wheat. A year ago we stated confidently that the prices for wheat during the spring and summer of 1909 would be higher than since the Leiter boom in 1898, and this turned out to be so, as our No. 1 Northern wheat July, 1909, sold as high as 135c., and for some weeks hovered between 130c. and 135c. Last year at this time decrease

in world's crops of wheat through crop failures in Russia, Germany and India and increase in consumption of wheaten breadstuffs had resulted in impending scarcity, owing to stocks of wheat and flour having been brought to a very low ebb. This season the situation is entirely changed, for the world's crop of 1909-10 is the largest ever raised, computed to amount to about 3,600,000,000 bus. as compared to 3,181,000,000 bus. in 1908-09. Thus while the consumption of breadstuffs tends to increase, the surplus raised last year is replenishing many depleted stocks in the hands of millers, flour merchants and bakers, and as notwithstanding probable damage to the U.S. winter wheat, the world may (for high prices are tending to a very large increase in acreage) easily raise as large a wheat crop as last year, there will be wheat and to spare, and with a large surplus to carry forward lower prices will come as naturally as higher prices came a year ago when the surplus was exhausted and no speculative manipulation, though it may temporarily hinder or retard, can prevent the logical result.

At the present time while export shipments from America are small, other exporting countries are shipping largely, and so importing Europe is well supplied. Last week American exports of wheat and flour amounted to only 1,480,000 bus. against 2,656,000 bus. same week last year, and 4,696,000 bus. same week in 1908, and yet the world's shipments last week were 10,432,000 bus. against 10,928,000 bus. last year and 11,894,000 bus. two years ago. The wheat situation outside of America is decidedly quiet, because the European visible supply at this date is 10,000,000 bus. larger than a year ago and weekly shipments are liberal and have every prospect of continuing so, and being much larger during the next five months than they were last summer. While Argentina will lack at least 20,000,000 bus. of as much wheat available for export as last year, she is several weeks later in beginning to ship, and she will have as much to ship between now and the end of the year as she shipped in the same time last year. Australia has as large an increase as Argentina is short, besides which, Russia has a very large surplus still to export compared with very small shipments made by her last year. After that there is India coming on with a record crop, now beginning to be cut in the earliest districts. With the Argentine, Australia, Russia and India all shipping largely at same time Europe will need very little from North America until the fall of the year. The crop prospects in Europe are all more or less favorable, except that in France the excessive rains and floods have done some damage, but how much cannot be known yet. Thus with liberal supplies for the present and in prospect, and favorable crop prospects, Europe need not be looked to to advance prices, or even to hold them up to present level, unless untoward later developments call for a change in that direction.

Our Winnipeg market has lost a great deal of the activity which characterized it all last fall and up to about the end of January. In fact if it had not been for the enlivenment induced by the crop damage reports from the U. S. we are sure our market during February would have been unusually stagnant. As it is, there is only a very moderate demand for the domestic market and practically no demand for export. The principal buyers are the terminal elevator companies who buy the cash wheat of the higher grades and hedge it by selling the May delivery, and the buyers of the May wheat are principally small speculators, and there is no important trading by large interests, so that the volume of trading is moderate. Stocks at Fort William-Port Arthur continue to increase moderately, and including all grades they now stand at 5,623,000 bus. against 4,535,000 bus. a year ago. It will not be long now before the trade will be looking forward to the opening of lake navigation.

Taking the whole grain situation of the world into consideration, and viewing it from the present

Homewood Stock Farm

Galloways, Berkshires, Oxford
Down Sheep and Angora Goats

Also an imported Clyde Stallion, Royal Ascot with Macgregor and Prince of Wales for grand sire. He is for sale at a bargain or will exchange for work horses.

Farm two miles from town. Phone 271, ring 2.

James Bray

Portage la Prairie

Man.

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Of High-Class

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179-185 James Street, Winnipeg

Wednesday March 16th

At 1.30 p.m.

SIX CARLOADS consisting of draft, delivery, farm, driving and general purpose horses; also a carload of mules and ten imported registered fillies. These are all selected stock, and every horse will be sold under a guarantee. Intending purchasers should look them over.

E. W. McLEAN'S SALES STABLES

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A Satisfied Customer the Best Advertisement

Farmers who ship their grain to Fort William or Port Arthur will find great advantage in employing the old established and reliable house of Thompson, Sons & Co., to look after and dispose of their shipments on commission.

In soliciting such business we can refer to many satisfied customers and in this connection beg to quote the following unsolicited letter:

SUMNER P.O., SASK.

Nov. 25th, 1909

Messrs. Thompson, Sons & Co.

DEAR SIRS,—

I have received returns with check attached, which were highly satisfactory. I feel it incumbent on me to write you expressing my best thanks for the businesslike manner in handling shipments of grain for me both this year and in the past, and will remember you again with my next shipments.

Yours very truly,

W. F. GREEN.

We invite all Western grain growers to write us for market information and prospects, and for instructions about shipping and "Our Way of Doing Business." Prompt, experienced, personal attention is given to every car of grain entrusted to our care for handling and disposal, and everything we can do is done for the interest and advantage of our customers.

THOMPSON SONS & CO.

GRAIN COMMISSION MERCHANTS

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Winnipeg, Canada

JOHN GEDDES, GRAIN COMMISSION MERCHANT.

You will ship to me again if you ship to me once.

WRITE:

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The Best Way Is Always the Cheapest

You believe in cleanliness in your home and in your person—why not carry this practice farther—then test results.

Your Horses, Cattle, Sheep, Hogs, etc.

need your attention—Mr. Farmer—perhaps you have noticed the rough hair and poor condition of some of your stock this very day—you know what's wrong, but there's just a doubt in your mind as to whether there is a positive cure.

It's Lice or some other parasite that saps the very life and energy out of your animals, and you should lose no time in effecting a cure by promptly using

COWL BRAND DRIPS

A combination of Pure Oils, blended with Oils-of-Tar, which are positively the most effectual and the surest vermin exterminator ever offered anywhere in the world.

The Cost is a Trifle

Cowl Brand Drips are less expensive considering results. A gallon will, may be, rid your entire herd of all lice, skin infections, germs, etc.

Ask Your Dealer for Cowl Brand Drips

Most every good dealer sells Cowl Brand Drips. If not, write us direct, and we'll send you a Gallon Tin, F.O.B., Winnipeg, for \$1.25 if you mention dealer's name.

Address Drip Dept.: **The Carbon Oil Works Ltd., Winnipeg**



wild raspberry, These and other good things described in our free catalog. Seed potatoes.

Buchanan Nursery Co.

WINNIPEG, ST. CHARLES P.O. Man.

FARM LOANS

The CANADA LIFE ASSURANCE CO. will loan upon Improved Farms upon favourable terms.

COSTS LOW.

PROMPT SERVICE.

Address

ROBERT YOUNG,
Manager INVESTMENT BRANCH,
Winnipeg.

standpoint of visible and invisible stocks, and general crop prospects so far as we understand them, we do not hesitate to advise our western farmers to ship forward all the wheat they can before seedtime, so as to have it in position to sell promptly whenever the favorable opportunity occurs, for it is going to take large crop failure to make better prices during summer than we have at present, and if crops are generally bountiful we may look forward to prices finding a level several cents below present level, however unwilling we may be to think of such a prospect. To-day's cash prices are:—No. 1 Northern, \$1.02½; No. 2 Nor., \$1.00½; No. 3 Nor., 98½c.; No. 4 wheat, 95½c.; all spot, enroute or March delivery. Futures closed: March, \$1.02¼; May, \$1.05½; July, \$1.06½.

Oats.

The oat market continues dull, but our prices are comparatively moderate, and in the last few days a little firmer feeling is noticed, without, however, advancing prices, which are about ½c. under two weeks ago. There seems no prospect at present of oats making any material advance, and yet prices are so moderate when compared with values of other grains that we cannot conceive of them going lower. We repeat what we wrote in our last report, viz., that our western farmers may do well to go slow in marketing oats, and then if nothing happens to cause the expectation of higher prices later, put in less acreage this season.

Barley.

There is not much doing in barley, but there has lately been a fair demand for No. 3 at 48c. and 48½c. in store at Fort William. No. 4 is not in demand, but sales have been made at 45½c. to 45¾c.

Flax.

Practically nothing doing in flax, but prices are fairly firm at: No. 1 Northwestern, \$1.89; No. 1 Manitoba, \$1.87. Futures closed to-day at: March, \$1.89; May, \$1.93.

All prices quoted above are based on in store Fort William and Port Arthur.—Thompson, Sons & Co.

Grain Inspections.

Grain inspections at Winnipeg, Calgary and Canadian inspections at Duluth for the period Feb. 14 to 28, inclusive were as follows:—Spring wheat, 1484 cars; winter wheat, 22 cars; oats, 631 cars; barley, 91 cars; flax, 42 cars.

Live Stock.

Prices are firm and receipts light. Buyers at the yards are expecting light runs for some time to come yet and the scarcity of stuff warrants a high level of prices for the spring months. This past week the bulk of the cattle sales have ranged from \$3.85 to \$4.60, \$5.00 being the highest and \$3.00 the lowest price paid. Good hogs are selling at \$8.75, the lowest price paid last week being \$8.25. There is a general shortage of hogs in both Canada and the U.S., prices for hogs having gone higher on the Chicago market last week than at any other time since the Civil War, \$9.80 being the top. Lambs are quoted at around \$6.50 with few or none offering and no sheep. Receipts of cattle during the week ending Feb. 26 were 767, hogs 1377, lambs 5. Quotations follow: Butcher's steers and heifers, \$4.50 to \$4.75; cows and heifers, \$4.00 and \$4.50; medium stuff, \$3.25 to \$4.00; choice hogs, \$8.75; choice sheep, \$5.00 to \$5.50; lambs, \$6.00 to \$6.50; calves, \$3.50 to \$4.00.

Horses.

The horse market is still active and reports from Ontario indicate that there is likely to be a shortage of horses there to do the spring work with if the westward movement is not checked. Farm horses are selling all the way from \$225 to \$275 each. Heavy drafters go as high as \$700 a team; \$550 is the least that will buy draft teams and at that figure not much quality will be secured. Delivery horses range from \$175 to \$250. A few mules are selling. Prices range all the way from \$450 to \$700 a pair.

WANT, SALE AND EXCHANGE

Under this heading will be inserted advertisements of farm properties, farm machinery, etc., for sale and exchange, farm help wanted, articles wanted and other lines of miscellaneous advertising.

TERMS—Two cents per word per insertion, payable strictly in advance, name and address to be included in the count. No advertisement will be taken for less than 50 cents.

For Sale—Barred Plymouth Rock Pullets, \$1.00 each. J. A. Surprenant, St. Jean Baptiste, Man.

Moving Picture Machine—(Ikonograph) \$25, including acetylene light outfit. J. E. Marples, Hartney, Man.

Wanted—Man and wife or single woman, to work on farm.—Golden Grain Ranch, Wadena, Sask.

For Sale—Pure bred Russian Wolf Hound Puppies, from good and fast killing stock. A. Marshall, Wellwood, Man.

Farm For Sale—First-class half-section, near good town, only \$16.00 per acre for quick sale. George Kellett, Carlyle, Sask.

Oxen—Homesteaders try them, two choice teams at \$150 per team. Full particulars, Sergt. Major Coles, Moffat, Sask.

For Sale—The imported Percheron Stallion, Wallace, foaled 1899, reg. No. 23831. D. A. Yeomans, Secretary, Alexander, Man.

Certificated Engineer and Machinist—15 years' experience, wishes engagement on steam plow or plant. Repairing done. Apply D. Mark, Mannville, Alta.

For Sale—One first-class Standard Bred pacing stallion, rising four years old. Good size, good looker and healthy. Copy of pedigree, etc., on application. Rev. W. Bell, Abernethy, Sask.

Seed Grain—A choice lot of Red Fife Wheat and Abundance Oats for sale. Samples and prices upon application. Jno. A. Mooney, P.O. Box 7, Regina, Sask. Phone.

New Ideas Wanted—If you hold patents and wish to dispose of them, or if you have good ideas and want patents, write us. We will help you. It's our business. Lyon & Gladstone, 210 Somerset Block, Winnipeg, Canada.

British Columbia—Fort George Land, 50000 acres fertile wheat and mixed farming lands. Send for photographs and Surveyors' reports. The Wright Investment Co., Dominion Trust Building, Vancouver, B.C.

British Columbia Farm Lands—80000 acres on Grand Trunk Pacific Railway, Fort George district, retail or in block. Rich soil, ideal climate, easy terms. The Mercantile Trust Co., Ltd., Vancouver, B.C.

For Sale or Exchange for Work Horses—Clydesdale Stallion, Royal Ascot, beautiful dark brown, eight years old, with Macgregor and Prince of Wales for grand sires. James Bray, Portage la Prairie, Man.

Free Booklet—Are you interested in a milder climate where the flowers bloom in February. British Columbia is the greatest opportunity land in Canada. Write for our booklet. Dept. C. L. W. Bick, 1104 Broad St, Victoria, B.C.

Strawberries—Catalogue with instructions for growing Strawberries free to those interested. New varieties, Kendall, Highland, St. Louis. Bountiful, Thirty leading older varieties. John Downham, Strathroy, Ont.

For Sale—Spruce and Tamarac trees for planting, size 10 inches up. Roots packed in moss. Now is your chance to get some beauties. \$10.00 a thousand, spring delivery. Order now or write for particulars. Edward Henderson, Whitemouth, Man.

Men Wanted—in every locality in Canada to make \$20 per week and \$3. per day expenses advertising our goods, posting up showcards in all conspicuous places and generally representing us. Steady work to right men. No experience required. Write for particulars. ROYAL REMEDY CO. London, Ont., Canada.

Lovers of good Tea—Should write for samples of the "Dagoba Pure Ceylon High Grade" Tea. Trade established in Western Canada for 12 years. New and clean stock direct from Ceylon on hand all the time. Very low prices for full and half chest lots. Agents wanted. Eggs and butter bought or sold on commission. G. C. Warren, Box 1036, Regina.

I Want to Buy—Moose, Elk, Caribou, Deer and Antelope horns and scalps (head and neck skin to shoulder). Raw furs and other specimens. You will realize more money by selling to me as I pay you the same price I pay middlemen and dealers. Honest treatment, prompt returns. Write me. Edwin Dixon, Wholesale Taxidermist, Main Street, Unionville, Ontario.

Here's a Proposition

Can you take advantage of it? I want to sell the south half of Sec. 9-38-21, just 3 miles from Muenster, 8 from Humbolt, on the main line of C.N.R. Unbroken with good water, price \$15.00 per acre. \$1000 cash, balance in six annual payments at 6%. Write me, T.W.L., care Nor'-West Farmer, Winnipeg.

Wanted to Rent—By first-class experienced man, a farm in Manitoba, with stock and implements, not less than half-section. E. Marsh, 526 Richmond St., Winnipeg.

Poultry For Sale—Canadian Poultry Review, 48 to 72 pages monthly. Bright, practical, fully illustrated. Every department in charge of a specialist. 34th year of publication. 50c a year, 3 years one dollar, anywhere in Canada, outside Toronto. Address, Toronto, Ont.

You can successfully handle and tan—Your own skins and furs without the usual hard work and loss of time. My up-to-date formulas and labor saving instructions enable anyone to do this interesting and profitable work in their leisure time, turning lost time into money. You cannot spoil any skins. I guarantee your success from your first attempt. A free set of mail lessons learning you to dress and mount animal skins and heads into valuable robes and rugs is included. Formulas and complete instructions are only \$3.00 post paid. Edwin Dixon, Taxidermist, Unionville, Ontario.

For Sale—Registered Herd of Aberdeen Angus Cattle, comprising ten females from two years old up, in calf to Lord Houghton. Also Lord Houghton, Champion at Brandon Spring Bull Sale 1907. These cattle are in good breeding condition and are reliable producers. One Yearling Angus Bull, Yearling Registered Shire Stallion, one 3 year old driving "Bryson" Gelding, one pair Weanling Clyde bred fillies, one Weanling Percheron bred Colt. M. C. Weightman, Morden, Man.

Okanagan Valley Fruit Farm—containing ten acres, nearly 500 trees of standard varieties, most of which will be bearing next season, adjoins the town of Penticton. This is an opportunity to secure an orchard without the years of weary waiting necessary to bring it to the bearing stage. The price asked, \$4,700, is considerably less than the actual cost of maturing an orchard at the present price of the raw land. Apply to G. S. Alexander, 504 McIntyre Block, Winnipeg.

Brother—Accidentally have discovered root that will cure both tobacco habit and indigestion. Gladly send particulars. A. C. Stokes, Mohawk, Florida.

Holstein Bull Calf for Sale—Bred from great producers. For pedigree and particulars apply to Neil Wilson, Heaslip, Man.

For Sale—Three Shorthorn bull calves, a few grade cows and a quantity of seed barley. For particulars apply to W. Sproat, Virden, Man.

Ayrshires for Sale—Some good cows from the Ashcroft herd. J. W. Proctor, Ashcroft Farm, Roland, Man.

For Sale—Western rye grass seed, seven cents per pound, sacks free. William Burns, Stoughton, Sask.

Wanted—Good farm in good locality. Will deal only with owner. American Investment Association, 813 Palace Building, Minneapolis, Minn.

Wanted—Man and wife for farm work. Man must be experienced farm hand, woman good cook. No children. James A. Colvin, Willowdell Farm, Sedgewick, Alta.

For Sale—Raspberry plants. Red (Turner) and yellow (Caroline) 50c doz. \$3.00, 100. Hardy and fruitful. Lilacs 10c each. \$1.00 doz. Mrs. A. Cooper, Treesbank, Man.

Improve—The laying qualities of your hens, by purchasing Leghorn cockerels at one fifty each; three for four dollars. Brown Leghorns, also white, in both sexes. Few turkeys left. A. Guilbert, St. Louis, Man.

For Sale—Registered Percheron stallion, three years old, black, weight 1800 pounds. I don't think this colt can be beaten for his age in Saskatchewan. For particulars address H. O. Hutchins, Box 66, Keeler, Sask.

For Sale—100 bushel Preston wheat, won 2nd prize at last seed fair, score 90. \$1.10 per bush. 200 bush, six-row barley, won 1st at last seed fair, score 89, 60 cents per bush., sacks 25 cents each. Erratt Bros., box 112, Saitcoats, Sask.

Senator Dunlap Strawberry Plants—R. M. Kellogg strain, \$10.00 per thousand, by freight or express at purchaser's expense. By mail, post paid, \$2.00 per hundred. Monrad Wigen, Creston, B.C.

Fence Posts—Cedar and Tamarac, earload lots quality guaranteed, prices to suit. Quotations on receipt. Shipments anywhere. Wilton Bros, Hay, Grain Produce and Wood Merchants, Cor. King and James, Winnipeg.

Pure Italian Bees—In 8 and 11 frame hives also supers with standard Langstroth frames combs wired and built from full sheets foundation, also honey extractor. C. Langill, Giroux Man.

For Sale—One Hackney Stallion, coming four, seventeen hands high, weight 1300, will take scrip on him. Correspondence solicited. W. B. Emmon box 47, Dubuc, Sask.

For Sale—Choice B. P. Rock cockerels, very large and barred to the skin, from prize stock. Mrs. James Yule, Van Horne Farm, East Selkirk, Man.

For Sale or Exchange—The imported Clydesdale stallion Glasserton (11726) Great Britain, (3983) Vol. 13, Canadian. Glasserton is a sure foal getter and leaves splendid stock. For information apply to Alex. Watson, sec.-treas. Lipton Clydesdale Association, Lipton, Sask.

Would You Marry If Sued?—Each issue of my matrimonial paper contains about forty columns advertisements of ladies and gentlemen from all sections of the United States, Canada, Mexico and Europe—rich, poor, young, old, Protestants, Catholics, etc. Sample copy mailed sealed free. W. H. Gurnells, Toledo, Ohio.

Vancouver Island offers sunny, mild climate; good profits for young men with small capital in business, professions, fruitgrowing, poultry, farming, manufacturing, lands, timber, mining, railroads, navigation, fisheries, new towns. For authentic information, free booklets, write Vancouver Island Development League room A 33, Law Chambers Bldg., Victoria, B.C.

For Sale or Exchange for Work Horses—The Imported Clydesdale stallion Blacon Macgregor C (8759), U. S. (9190), B. (10167) winner of two premiums of \$500.00 each before importation. Sire, Macgregor (1487), by Danley (222); Dam, Matilda (11992) by Prince of Wales (673). Been in this district for six years. Horses to be sound and well broken, from 4 to 8 years old and weighing from 1300 to 1600 lbs. For further particulars apply to Wm. D. Lyon, Moffat, Sask.

Seed Oats and Wheat—Garton's Regenerated Abundance oats, yielded over 80 bushels per acre. Every care has been taken to keep these oats perfectly clean and pure. The seed growing them cost \$2.25 per bush. My price \$1.25, over ten bushels \$1.10, cotton bags free. Also Red Fife wheat, pure and clean, all grain free from noxious weeds or wild oats, \$1.25 per bush., cotton bags free. Get the best of seed and the only "Mustard" you'll have to deal with is W. A. Mustard, Westholm Farm, Creelman, Sask.

Films Developed

10 CENTS PER ROLL

All Sizes of 6 exposure, 10 or 12 exposure, 20c. VELOX PRINTS, BROWNIES, 3c; 3½x3½, 3½x4½, 4c; 4x5, 3a, 5c.

Cash with order, including postage. All work finished the day it is received. We are film specialists and give you better results than you ever had.

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Watch Need Fixing?

Send your name and address for a Mailing Box. We guarantee you satisfaction.

Ask us about our price of any article of jewelry you want. We give you best of value.

J. K. CALLAGHAN

Brandon, Man.

Send \$1 Receive four wool cloth remnants suitable for boys' knee pants, up to 12 years. Give age and we will cut free. Send 50c. receive 25 wool quilt pieces, none under 6 inches square, bright colors. N. Southcott Co., 2 King Street, London, Ont.

WE GIVE a fine plated gold watch, guaranteed five years, proper size, handsomely engraved; with chain; and plated gold ring, beautiful 1. diamond setting, for selling 24 low priced jewelry articles among your friends. Send name and address. No money. We trust you. Articles sent at once. Full instructions. Introductory offer. Only limited time. Write right now to —

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SPECIAL ATTENTION GIVEN TO PATENT LITIGATION
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Ladies' Spring Suits From \$8 to \$18. Send for free cloth samples and style book. Southcott Suit Co., 2 King Street, London, Ont.

LEASING OF LANDS The company is prepared to lease or hay and grazing purposes all reserved quarter or half section. For particulars apply the Land Department, Hudson's Bay Company, Winnipeg.

HELP WANTED We want a reliable man with rig, or capable of handling horses, in every locality in Canada on salary or commission—\$15.00 a week and expenses, with advancement, introducing and advertising our Royal Purple Stock and Poultry Specifics, putting up bill posters, 7 by 9 feet; selling goods to merchants and consumers. No experience needed. We lay out your work for you. A good position for farmer or for farmer's son, permanent, or for fall and winter months. Write for particulars.
The W. A. Jenkins Mfg. Co., London, Ont.

Standard Formaldehyde

(Registered)

The Brand You Have Used
For Years.

STANDARD
(REGISTERED)
FORMALDEHYDE
(40% VOL.)

(Sometimes called Formalin)

FOR DESTROYING SMUT IN WHEAT,
OATS, BARLEY. Also FLAX WILT

Add one pound Formaldehyde to 32-40-Imperial gallons of water, pile seed grain in heap on floor and sprinkle well with solution and shovel over so all grains are thoroughly wet — (if badly smutted immerse for ten minutes in solution) Cover over for two hours with sacks or blankets to keep in the gas, then spread out to dry and sow within twenty-four hours if possible.

Potato Scab—Soak the whole potatoes in the water solution for two hours—dry and cut for planting.

General Disinfecting—use one to two ounces to a quart of water and flush sinks, cellars, closets, damp and mouldy places, stable walls, mangers, feed troughs, etc.

Manufactured by
The Standard Chemical Company of Toronto, Limited
MONTREAL, TORONTO, WINNIPEG

Sold Through Your
Local Merchants

The Standard Chemical Co. of Toronto
Limited

THE ONLY MAKERS IN CANADA.

Dollars for your Flax Straw

Do you know that Fifty Million Dollars, which could have
been saved to you, Mr. Farmer, went up in Smoke in 1909

This represents merely what the year's Flax Straw Crop of the country would have realized in Prepared Linen Fibre and Paper Pulp. Will you aid us in turning this tremendous loss into the greatest source of profit Canadian soil has ever yielded? The purpose is to turn the straw by a new process—which we possess—into a marketable commodity with which the Asiatic and European products cannot compete.

Port Arthur has given us fifty acres of land on the harbor and railways, exempt from taxes for 30 years, with power, water and light at cost. Each ton, after paying all expenses, including purchase, baling, freight, manufacturing, administration, depreciation, etc., will yield a net profit of \$100.

One thousand shares of treasury stock are on sale at par for the construction of the first of a series of "sections" in which form the plant will be built. Each section will cost \$25,000 and will have capacity for treating 10 tons of straw daily.

Port Arthur has been chosen because of its soft water (an essential to our process) and the fact that from this point we have water transport direct to Liverpool for our linen fibre and to Lake points for our paper pulp.

See press notices and write for full particulars to the

Canadian Linen and Paper Co. Ltd.

445 Main Street

Winnipeg

W. R. G. PHAIR, Secretary
Canadian Linen and Paper Co. Ltd., 445 Main St.
WINNIPEG.
Please send me stock application form and
further particulars.
NAME.....
ADDRESS.....
TOWN.....



Every Farmer's Wife in Canada Ought to Read this Advertisement



IF you, Madam, are a farmer's wife, you should use your influence to get your husband to roof the house and barn with Oshawa Galvanized Steel Shingles. For these practical reasons:—

Safe Against Lightning

Every thunderstorm that passes over your place endangers his life and your own, and threatens damage or destruction to the property. But there would be no such danger if the farm buildings were roofed with Oshawa shingles. They protect any building against lightning—far better than any lightning-rod system possibly can.

Safe Against Fire

And, at certain times in the year, the house you live in and the barn nearby is in danger from fire—flying sparks from the threshing machine; sparks from the kitchen chimney; sparks from passing locomotives; sparks from forest fires, perhaps. Farmer's roofs catch fire in many ways—and you are different from most farmer's wives if you do not dread this ever-present danger. You need not dread it at all when the buildings are covered with a seamless steel fireproof Oshawa shingled roof.

Improves Cistern Supply

Probably you depend a good deal on cistern water. An Oshawa-shingled roof keeps your cistern fuller, and the water is cleaner, tasteless, without odor. It never can be from a wood-shingled roof. It always is from an Oshawa-shingled roof.

Costs Very Little

When you speak to your husband about this, ask him to send for the instructive and handsomely-illustrated free book called Roofing Right. He will see, when he reads that, that the actual cost of an Oshawa-shingled roof is less than five cents per year for a hundred square feet of roof surface. He will see that this roofing is **guaranteed to satisfy in every sense for twenty-five years, or he gets a new roof for nothing.** He will see that it will pay him well to cover his house and barn with a roof that is **guaranteed wet-proof, wind-proof, fireproof and lightning-proof for a quarter century,** and that will be a good roof in every sense for fully 100 years.

Use Your Influence

Interest yourself in this vital matter. It directly concerns you. Get your husband to inquire into it. Get him to send for the free book—now—to-day. Or send for it in your own name. Do that, anyway. You will be interested in what the book tells you; and it is important that you, as well as himself, should know all about roofing, and about Roofing Right in particular. Send now for the book, please.

OSHAWA STEEL SHINGLES are made of 28 gauge steel, specially toughened and heavily galvanized to make them rust-proof. Thus they weigh about **SEVENTY-EIGHT**



pounds to the square. With the box about 88 pounds to the square.

When considering metal shingles always learn **THE WEIGHT OF METAL** per square offered and be sure that the weight is of the **METAL ONLY.**

Make the weight test yourself. First be sure the scales are accurate. Then unbox a square of Oshawa Shingles and weigh them. Note that the weight averages 78 pounds **WITHOUT THE BOX.**

Don't go by the box weight. Some boxes weigh fourteen pounds or more.

G. A. Pedlar

DON'T stop when you have Oshawa-shingled your roofs. That is only the first step towards making a house modern, or a barn what a barn should be. Go on and plate your house inside and out with steel. Cover the surface of your barn with steel. In a word, "Pedlarize" every building on your farm. This way:

Make Your House Fireproof

Finish the interior of every room in your house with Pedlar Art Steel Ceilings and Side-Walls. These are made in more than two thousand beautiful designs, the patterns stamped accurately and deeply into the heavy and imperishable metal. They cost less than plaster in the first place; and they will be like new when a plaster ceiling or wall is cracked to the danger point—which doesn't take long as a rule. They are easily put in place. They can easily be painted and decorated.

Make Your House Sanitary

Then, if you surface the exterior of the house with Pedlar Steel Siding—it is made to simulate brick, rough stone, cut stone—these Ceilings and Side-Walls and an Oshawa-shingled roof gives you a residence that is more nearly fireproof than the "skyscrapers" of the great cities. Also, such a house will be much warmer in winter than if it were built of solid brick—and so it will save its cost in fuel-savings. It will be cooler in summer. It will be sanitary inside—you can wash the ceilings and walls clean with soap-and-water. It will be a handsome, substantial, and enduring proof of your judgment in choosing the modern building material—steel—Pedlar-made Steel.

Make Your Barns Safe

With Pedlar Steel Siding you can finish the outside of your barn most economically, and your cattle will thrive better in bitter weather than if they were housed in a solid concrete barn. This heavy-gauge seamless steel finish, keeps out the wind and keeps in the animal heat. It saves in lessened feed-bills enough to pay its cost over and over. It costs but little; it is simple to put on; and it will outlast the building's very timbers. Most important of all, it—with Oshawa Steel Shingles for the roof—makes barns practically proof against fire, entirely free from every kind of dampness, and proof against lightning.

Learn About Pedlarizing

At the same time you send for your free copy of Roofing Right Booklet No. 4, ask us for particulars about these other Pedlar specialties. We will send you samples of any of them; prices; illustrations; and samples of the Oshawa Steel Shingle as well—all just for the asking.

**GET SEVENTY-EIGHT POUNDS OF STEEL TO THE SQUARE
GET A TWENTY-FIVE YEAR GUARANTEE**



THE PEDLAR PEOPLE OF OSHAWA

HALIFAX 16 Prince St. ST. JOHN, N.B. 42-46 Prince William St. QUEBEC 127 Rue du Pont MONTREAL 321-3 Craig St. OTTAWA 423 Sussex St. TORONTO 11-113 Bay St. LONDON 86 King St. CHATHAM 200 King St. W.

PORT ARTHUR 45 Cumberland St. WINNIPEG 76 Lombard St. REGINA 1901 Railway St. South CALGARY 1112 First St. West VANCOUVER 821 Powell St. VICTORIA 434 Kingston St.

ADDRESS OUR NEAREST WAREHOUSE. WE WANT AGENTS IN SOME LOCALITIES. WRITE FOR DETAILS. MENTION THIS PAPER.

